

DTIC FILE COPY

AD-A163 641

BELIZE

AREA STUDY

①
S DTIC
ELECTED
FEB 04 1986
D
f D

Prepared by

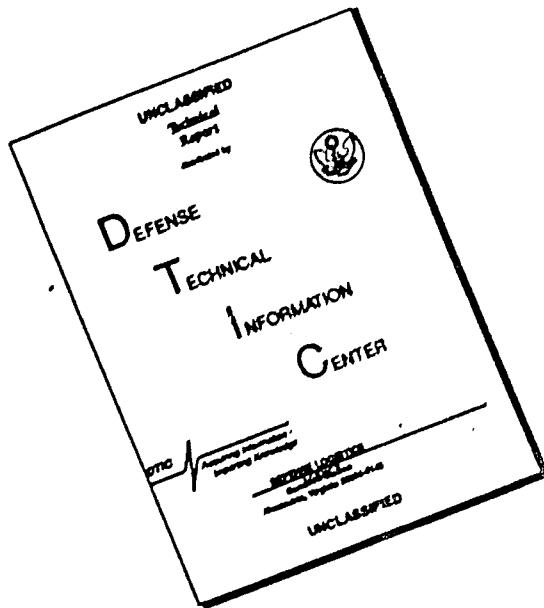
361st Civil Affairs Brigade
Pensacola, Florida

DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited

November 20, 1983

86 1 17 021

DISCLAIMER NOTICE



**THIS DOCUMENT IS BEST
QUALITY AVAILABLE. THE COPY
FURNISHED TO DTIC CONTAINED
A SIGNIFICANT NUMBER OF
PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**



REPLY TO
ATTENTION OF

DEPARTMENT OF DEFENSE
UNITED STATES SOUTHERN COMMAND
APO MIAMI 34003

F O R E W O R D

Enclosed are copies of unclassified area assessments prepared by the 361st Civil Affairs Brigade under the direction of the Plans, Policy and Politico-Military Affairs Directorate (J5) of the United States Southern Command.

These area assessments are designed to be used as civil affairs planning guides for exercises and general reference documents for the backgrounds on the countries.

In a continuing effort to improve the quality of these documents, you are encouraged to submit any recommended changes and/or corrections.

The point of contact at the United States Southern Command is:

LTC Mary A. Wright, USA
HQ, USSOUTHCOM
SCJ5-PM
Quarry Heights, Panama
APO Miami 34003

Autovon: 313-221-3490
Commercial: (507)-82-3940

John P. Spone
JOHN P. SPOONE, JR.
Colonel, USAF
Director, J5

TABLE OF CONTENTS :

Chapter One	The History, People, and Land:.....	1
Chapter Two	Government;.....	4
Chapter Three	Defense and Disaster Planning;.....	19
Chapter Four	Public Health:.....	23
Chapter Five	Public Welfare:.....	49
Chapter Six	Public Education and Recreation:.....	55
Chapter Seven	Labor:.....	62
Chapter Eight	Economics, Commerce, and Industry;.....	69
Chapter Nine	Agriculture and Food:.....	75
Chapter Ten	Public Finance:.....	119
Chapter Eleven	Public Utilities:.....	126
Chapter Twelve	Public Transportation:.....	131
Chapter Thirteen	Public Communication:.....	136
Chapter Fourteen	Arts, Monuments, and Archives:.....	139
Chapter Fifteen	Refugees and Displaced Persons:.....	141
Chapter Sixteen	Religion.....	143

Accesion For	
NTIS CRA&I <input checked="" type="checkbox"/>	
DTIC TAB <input type="checkbox"/>	
U annou. ced, <input type="checkbox"/>	
Justification.....	
By <i>On file</i> Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

QUALITY
SELECTED

CHAPTER ONE

THE HISTORY, PEOPLE AND LAND

The story of Belize starts in the dim mists of pre-history with early Mayan settlement at least as early as 1500 B.C. These Mayan sites flourished until about A.D. 1000. After that time, most of the Indians left the area, not to return until the nineteenth century. There are extensive ruins from this era and Belize, therefore, has substantial potential for archeological research and numerous sites to be protected (see Chapter on Arts and Archives).

The first European settlers were English and Scottish pirates who became wood cutters in the early 1600s and tapped the vast logwood tracts which were in great demand for the manufacture of dye. Mahogany gradually replaced logwood as an exportable resource. The Spanish repeatedly attacked the area, in attempts to drive the British away, but the Treaty of Paris in 1763 conceded the British settlers the right to engage in the logwood harvest. Spain maintained sovereignty over the area until 1798, when the British won a naval engagement with Spain off St. George's Cay. England maintained from that time that the area was British. It was made a British Colony in 1862.

Guatemala has claimed Belize since early in the nineteenth century, even though an agreement was signed in 1859 in which Guatemala gave up its claim and England promised to build a road from Guatemala City to Belize City. The road was never built, so Guatemala does not accept the agreement. Few Belizeans are interested in joining Guatemala, however, and the issue is currently at a standstill, although there are constant threats from Guatemala.

The Belizean people today number almost 150,000 and are an interesting mixture of Creole population which lives mainly on the coast and along the

major streams (about 50%); Indian, (17%) in the north and extreme west and south; Black Caribs (10%), along the southern coast; unmixed Europeans and North American (10%); and about 10% a combination of Lebanese, Chinese, East Indians, and refugees from neighboring Central American countries. The Indian group does not descend from the original Maya, but from those who re-immigrated back into the area in the nineteenth century. The Black Caribs who descended from the Blacks who were deported from St. Vincent in 1797, went to Honduras, then in 1823 came to Belize under the leadership of El Beni.

Due to the long years of British influence, English is the official language and is spoken by about 75% of the population. It is not a pure English, but a combination of Spanish, Indian dialects, and English. It can however, be understood by most North Americans. Approximately 50% of the population speak Spanish; with about 15% of the citizens it is their native tongue. The Mennonites speak German and some English.

The country is about 50% Roman Catholic, even though for years the official state church was Anglican. Today about 50% is Anglican, Protestant, and Mennonite (see final chapter for further discussion of the religious situation).

Belize, on the eastern side of Central America, is 174 miles long and 68 miles wide (8,750 square miles onshore, 116 square miles on the Cays). Even though small, its topography ranges from small off-shore island (cays) and a long coral reef to mountains reaching to 3,680 feet above seal level. The lowlands occupy the northern half of the country and consist of gently rolling limestone hills and relatively level plains. It is generally similar to the entire Yucatan Peninsula of which it is a part. If the drainage is sufficient, land use there is intensive, but much of the area is swampy and poorly

drained. The coastal plain is low-lying with poorly drained soil.

Much of the interior is made up of ancient limestone rock which has been eroded away leaving rugged terrain with numerous caves, sinkholes, and hollows. The Maya Mountains, in the western section are formed from hard rock which has resisted weathering. That area is divided into four areas: Cockscamb Hills, Bald Hills, Granite Basin, and the Southern Mayas.

The southern lowlands are in a region of higher rainfall and are closely related to a true rain forest. The hills are more undulating than in the northern lowlands. This is an isolated area of little development.

Rainfall varies greatly in Belize, with about 50 inches per year falling at Corozal to 150 inches at Punta Gorda. A well-defined dry season extends from late January through April in the North, decreasing to a few weeks in the south. Following is a chart of rainfall at various locations to give an idea of the variability:

	<u>Rainfall in Inches</u>	<u>No. of Rain Days</u>
San Ignacio	60.6	114
Belize International Airport	70.9	141
Stann Creek	88.8	172
Punta Gorda	152.0	193

The climate is hot and humid, tempered somewhat on the coast by breezes. Trade winds blow onshore most of the year, but from September to December northerly winds bring cooler, drier air. Hurricanes are a potential threat, as demonstrated by the damage caused by Hattie and Greta in recent years. Since 1955 seven hurricanes have hit Belize.

CHAPTER TWO

GOVERNMENT

HISTORICAL DEVELOPMENT

Belize, formerly British Honduras, was made a British Crown Colony in 1862. For over 100 years previously the settlement had enjoyed responsible government through its form of government called Public Meetings, and later by an elected Legislative Assembly. Representative Government was then surrendered, and the elective principle was not re-introduced until 1935, to be followed by Adult Suffrage and Representative Government again in 1954.

Since becoming a Crown colony, the Constitution evolved toward full internal government with major amendments in 1954, 1960, and 1963. The Constitution of January, 1964 (British Honduras Constitution Ordinance, 1963) conferred on Belize full internal self-government; however, defense and foreign affairs remained under British control.

The Constitution provided for a legislature consisting of Her Majesty and a National Assembly, comprising a House of Representatives and a Senate. The National Assembly consisted of an elected House of Representatives of 18 members and an appointed Senate (with limited delaying powers only) of 8 or sometimes 9.

The official name of the Territory was changed from British Honduras to Belize in June 1973.

INDEPENDENT NATION

On September 21, 1981, Belize became an independent nation. Political independence, though, has not brought about any drastic or dramatic changes in the country. The new nation elected to remain in the British Commonwealth

of Nations; therefore, the British Queen is still the Titular Head of State. Now she is represented by a Belizean Governor-General and not a British Governor. The powers and responsibilities formerly held by the British Governor have reverted directly to the Government, with the Prime Minister as its head. The nation also elected to adopt a system of Parliamentray Democracy based on the British system. The Constitution makes specific provision for the protection of fundamental rights and freedoms of the individual regardless of race, creed, sex, or ownership of property. In this regard, it further codifies the system of English Common Law and former Colonial Laws of Belize, which remain largely in effect.

STRUCTURE OF GOVERNMENT

THE EXECUTIVE:

Under the new Constitution, Belize became a Constitutional Monarchy with a Parliamentary form of government. Queen Elizabeth II is recognized as Queen of Belize and Constitutional Head of State. She is represented in Belize by a Governor-General. The Governor-General is assisted by the Belize Advisory Council, consisting of not less than six members. The Governor-General serves as Chairman of this Council.

The Governor-General appoints the Prime Minister and such other officers of Ministry of the Government as may be established by the National Assembly. The Prime Minister shall be a member of the House of Representatives and the leader of the political party which commands the support of the majority of the House members. The other officers of Ministry must be members of either the House of Representatives or Senate, with the exception of the Office of Attorney-General. The Attorney-General, a Constitutional officer, is the principal legal advisor to the Government and is responsible for the administration of the legal affairs in Belize.

The allocation of portfolios to Ministers, including the administration of any department of government, is by direction in writing by the Governor-General, acting in accordance with the advice of the Prime Minister. However, the responsibility for finances shall be assigned to a Minister who is a member of the House of Representatives. In the case of the Attorney-General, to be qualified for appointment, such person must have for at least five years been entitled to practice as an Advocate in a court having unlimited jurisdiction in civil and criminal matters in accordance with the Constitution.

The Cabinet of Ministers for Belize currently consists of the Prime Minister, ten Ministers, and two Deputy Ministers. The Secretary to the Cabinet is responsible for the Cabinet Office.

TABLE I

THE GOVERNOR-GENERAL, MINISTERS OF GOVERNMENT, PERMANENT SECRETARIES, AND SENIOR ADVISORS IN THE GOVERNMENT OF BELIZE

<u>TITLE</u>	<u>NAME</u>	<u>ADDRESS</u>	<u>Telephone</u>
<u>Governor-General</u>	Her Excellency Dr. Minita E. Gordon	Belmopan	08-2521
Private Secretary	Mrs. Janice Gillett	Belmopan	08-2521
<u>PRIME MINISTER AND MINISTER OF FOREIGN AFFAIRS, FINANCE & ECONOMIC DEVELOPMENT DEFENSE</u>	The Right Honorable George C. Price	Belmopan	08-2346
Cabinet Secretary (A) Ministry of Finance Financial Secretary and Ambassador to the U.S. Head of Planning Unit Governor of Belize Monetary Authority		Belmopan	08-2345
	Edmund A. Marshalleck Clarence Borland	Belmopan Belmopan	08-2344 08-2352
	H. E. C. Cain	Belize City	02-7216
		Treasury Bldg.	
Accountant General	Harold Perriott	Belize City	02-7217
		Treasury Bldg.	
Auditor General	Michael Guerrero	Belize City	02-7076
		Treasury Bldg.	
Comptroller of Customs	Kenneth L. Ewing	Belize City	02-3864
		Customs Dept.	
Harbor Master	Alberto Mahler	Belize City New Port	02-2439

Table I Continued....

<u>TITLE</u>	<u>NAME</u>	<u>ADDRESS</u>	<u>Telephone</u>
Commissioner of Income Taxes	Roy Coote	Belize City Income Tax Dept.	02-7125
(B) Ministry of Foreign Affairs			
Permanent Representative to the United Nations and Charge d'Affaires to the United States	Robert Leslie	Wash., D.C./ New York City Belmopan	
Permanent Secretary	Everal G. Waight		08-2167
<u>DEPUTY PRIME MINISTER AND MINISTER OF DEFENSE AND HOME AFFAIRS</u>			
Permanent Secretary	Hon. G. L. B. Rogers	Belmopan	08-2353
Commissioner of Police	Michael Hulse	Belmopan	08-2336
Commandant, Belize Defense Force	Maxwell Samuels	Belmopan P. O. Box 284	08-2224
Superintendent of Prisons	LTC Christopher C. Galloway	Price Barracks, Ladyville	025-2174
Permanent Secretary (Establishment)	Bernard Adolphus	Central Prisons Belize City	02-7350
Chief Information Officer	E. N. D. Fuller	Belmopan	08-2205
Chief Immigration Officer	Norris Hall	Belmopan	08-2159
	Sgt. Philip Lewis	Belize City	08-7237
<u>MINISTER OF STATE / FORMER HOME AFFAIRS</u>			
<u>MINISTER OF NATURAL RESOURCES</u>			
Permanent Secretary	Hon. V. H. Courtenay	Belmopan	08-2167
Commissioner of Lands & Surveys	Hon. Florencio Marin	Belmopan	08-2333
Chief Agricultural Officer	James Hyde	Belmopan	08-2330
Chief Forest Officer	Kenneth Schnaar	Belmopan	08-2330
	Liborio Gonzalez	Belmopan	08-2332
	Henry Flowers	Belmopan	08-2166
<u>MINISTER OF WORKS</u>			
Deputy Minister	Hon. Fred Hunter	Belmopan	08-2138
Permanent Secretary	Samuel Waight	Belmopan	08-2138
Chief Engineer	Eustace Usher	Belmopan	08-2131
	Edgar Puga	Belmopan	08-2131
<u>MINISTRY OF TRADE AND INDUSTRY</u>			
	Hon. Guadalupe Pech	Belmopan	08-2199

Table I Continued....

<u>TITLE</u>	<u>NAME</u>	<u>ADDRESS</u>	<u>Telephone</u>
Permanent Secretary	Egbert Grinage	Belmopan	08-2321
Senior Investment Economist	Orlando Puga	Belmopan	08-2156
ATTORNEY GENERAL & MINISTER OF EDUCATION AND SPORTS &			
AMBASSADOR TO CARICOM	Hon. Said Musa	Belmopan	08-2151
Permanent Secretary	Patrick Bernard	Belmopan	08-2329
Solicitor General	George Brown	Belmopan	02-2154
Chief Justice of the Supreme Court	His Lordship George C. R. Moe	Belize City Public Bldg.	02-7256
Registrar General	Hector B. Knight	Belize City Public Bldg.	02-2053
Chief Magistrate	George Singh	Belize City Paslow Bldg.	02-3064
Chief Education Officer	Inez Sanchez	Belmopan	02-2324
Chief Librarian	Lawrence Vernon	Belize City	02-3367
MINISTER OF LOCAL GOVERNMENT AND SOCIAL SECURITY			
Permanent Secretary	Hon. Elijio Briceno	Belmopan	02-2161
Social Security Officer	Walter Brown	Belmopan	02-2161
Leonides Cuellar	Leonides Cuellar	Belmopan	02-2161
MINISTER OF LABOR, SOCIAL SERVICES AND COMMUNITY DEVELOPMENT			
Permanent Secretary	Hon. David L. McKoy	Belmopan	08-2248
Labor Commissioner	Eric Fairweather	Belmopan	08-2246
Social Development Officer	Raymundo Cuellar	Belmopan	08-2323
	Edwin Belisle	Belmopan	08-3479
MINISTER OF HEALTH, HOUSING AND COOPERATIVES			
Deputy Minister	Hon. Assad Shoman	Belmopan	08-2326
Permanent Secretary	Hon. Jane Usher	Belmopan	08-2149
Chief Medical Officer	David Gibson	Belmopan	08-2326
Housing and Planning Officer	Dr. Juan Casas	Belize City Hospital	02-7237
Registrar of Cooperatives	John Hertular	Belize City	02-2114
	Norman Augustine	Belize City	02-2114
MINISTER OF ENERGY & COMMUNICATIONS			
Permanent Secretary	Hon. Louis S. Sylvestre	Belmopan	08-2391
Meteorological Officer	John Longsworth	Belmopan	08-2132
Civil Aviation Officer	Henry Gordon	Belize Internat'l. Airport	025-2012
	Luigi Zaldivar	Belize Internat'l. Airport	025-2013

Table I Continued....

<u>TITLE</u>	<u>NAME</u>	<u>ADDRESS</u>	<u>Telephone</u>
Postmaster General	Evan Godfrey	Belize City	02-7201
<u>OTHER AGENCIES/ORGANIZATIONS</u>			
Development Finance Corporation	Telford Vernon	Belmopan	08-2350
Caribbean Development Bank	Walter Craig	Belize City	02-44388
Reconstruction & Development Corporation	Hugh Fuller	Belmopan	08-2319
Belize Chamber of Commerce	Elton Jones, Pres.	Belize City	02-3148
Private Sector Organization	Louis Humphreys, Pres.	Belize City	02-44864
Natl. Development Foundation of Belize	Philip Gallaty, Chairman	Belize City, Box 36	02-44407
Archaeology Commissioner	Harriot Topsey	Belmopan	08-2106
Assistant Archaeology Commissioner	Jaime Awe	Belmopan	08-2106

THE LEGISLATIVE

The Constitution establishes a legislature consisting of a National Assembly comprising two Houses: A House of Representatives and a Senate. Subject to the provisions of the Constitution, the National Assembly may make laws for the peace, order, and good government of Belize. Either House may introduce a bill for consideration; however, the Senate cannot introduce a money bill.

The National Assembly meets at least once each year. The time and place is determined by the Governor-General.

The House of Representatives consists of 18 members elected for a period of five years by popular adult vote from electoral divisions which are distributed as follows: two each from the districts of Corozal, Orange Walk, Cazo, Stann Creek, and Toledo; eight from the rural areas; and six from the Belize City area.

Qualifications for election as a member of the House are citizenship of Belize, age of eighteen years or upwards, and residence in Belize for a period of at least one year immediately before the date of nomination for election.

The Senate consists of eight members who are appointed by the Governor-General as follows: five acting in accordance with the advice of the Prime Minister, two acting in accordance with the advice of the Leader of Opposition, and one acting after consultation with the Belize Advisory Council. Qualification for appointment as a Senator is the same as for election to the House of Representatives.

TABLE II
MEMBERS OF THE HOUSE OF REPRESENTATIVES AND CABINET

Name	Constituency Represented	Private Address	Party Affiliation
1. RICE, George Cadle, Prime Minister and Minister of Finance, Economic Development and Foreign Affairs	Freetown	Belize City	Peoples United Party
2. COURTENAY, Vernon Harrison, Minister of State	Collet	Belize City	Peoples United Party
3. MCROY, David Lawrence, Minister of Labour, Social Services and Community Development	Stann Creek Rural	Belmopan	Peoples United Party
4. HUNTER, Frederick Hopkins, Minister of Works	Belize Rural North	Belize City	Peoples United Party
5. MARIN, Florencio Julian, Minister of Natural Resources	Corozal South	Corozal Town	Peoples United Party
6. PECH, Guadalupe, Minister of Trade and Industry	Orange Walk South	Orange Walk	Peoples United Party
7. SYLVESTRE, Louis Sydney, Minister of Energy and Communications	Belize Rural South	Belize City	Peoples United Party
8. CASTILLO, Valdemar, Deputy Speaker	Corozal North	Corozal Town	Peoples United Party
9. SHOMAN, Assad, Minister of Health	Cayo North	San Ignacio	Peoples United Party
10. MUSA, Said W., Attorney General and Minister of Education and Sport	Fort George	Belize City	Peoples United Party
11. WAIGHT, Samuel O., Parliamentary Secretary, Ministry of Works	Cayo South	Belmopan	Peoples United Party
12. USHER, Mrs. Jane E., Parliamentary Secretary, Ministry of Health, Housing and Co-operatives	Pickstock	Belize	Peoples United Party

Table II Continued....

Name	Constituency Represented	Private Address	Party Affiliation
13. BRICENO, Elijio E., Minister of Local Government and Social Security	Orange Walk North	Orange Walk	Peoples United Party
14. ARANDA, Theodore	Dangriga Town	Stann Creek	United Democratic Pty
15. GOLDSON, Phillip S.W.	Albert	Belize City	United Democratic Pty
16. THOMPSON, Curl O., Leader of the Opposition	Mesopotamia	Belize City	United Democratic Pty
17. WAGNER, Charles E.	Toledo South	Punta Gorda	United Democratic Pty
18. AH, Basilio	Toledo North	San Antonio	United Democratic Pty
19. HYDE, C. B., M.B.E., Speaker and Joint President of the C.P.A.		Belize City	

MEMBERS OF THE SENATE

Name	Private Address	Party Affiliation
ROGERS, Carl L., Minister of Defense and Home Affairs	Unity Blvd., Belmopan Office Tele: 08-2353	Peoples United Party
2. RAMOS, Gadsby, Vice-President	No. 1 "M" Street Belmopan	Peoples United Party
3. FULLER, Alvan	No. 6 Racetrack St. Belize City Telephone: 2433	Peoples United Party
4. CHUN IV, Juan	San Antonio Village Crique Jute, Toledo District	Peoples United Party
5. LEWIS, Herman	No. 66 Main Middle St. Punta Gorda Town Telephone: 07-2060	Peoples United Party
6. ESQUIVEL, Manuel	P. O. Box 165-8Daly St. Belize City Telephone: 4-5490	United Democratic Party
7. ARAGON, Eladio	Castillo Estate Orange Walk Town Telephone: 03-2088	United Democratic Party
8. SEARLE, Mrs. Elvira	c/o Belize Global Travel, Service, Belize City Telephone: 7185	

THE JUDICIARY

Belize is divided into six judicial districts. Each district has a

summary jurisdiction court and a district court, both presided over by magistrates. The summary jurisdiction courts have broad jurisdiction in indictable and other offenses; the district courts have jurisdiction only in civil cases in which the claim does not exceed Bze\$500.

The Supreme Court (corresponds to the English High Court of Justice) has both appellate and unlimited original jurisdiction to hear and determine any civil or criminal proceedings under any law and such jurisdiction and powers as may be conferred on it by the Constitution or any other law. The justices of the Supreme Court are the Chief Justice and such number of other justices as prescribed by the National Assembly.

Qualifications for appointment as a Justice of the Supreme Court are: qualified to practice as an attorney-at-law in a court in Belize or as an advocate in a court in any other part of the Commonwealth having unlimited jurisdiction either in civil or criminal causes or matters; and not less than five years of practice in such court.

The Chief Justice is appointed by the Governor-General, acting in accordance with the advice of the Prime Minister given after consultation with the Leader of the Opposition. Justices other than the Chief Justice are appointed by the Governor-General, acting in accordance with the advice of the Judicial and Legal Services section of the Public Services Commission and with the concurrence of the Prime Minister given after consultation with the Leader of the Opposition.

Usually, Justice of the Supreme Court may hold office until he attains the age of 62. However, a justice may be permitted to continue in office until he attains the age of 70.

The Court of Appeals has such jurisdiction and powers to hear and determine appeals in civil and criminal matters as may be conferred on it

by the Constitution or any other law. The Judges of the Court of Appeals consist of a President and such number of other judges as may be prescribed by the National Assembly. Appointment of Justices of Appeal are made by the Governor-General, acting in accordance with the advice of the Prime Minister given after consultation with the Leader of the Opposition for such period as may be specified in the instrument of appointment.

Qualifications for appointment as a Justice of Appeal are: hold or has held office as a Judge of a Court having unlimited jurisdiction in civil and criminal matters in some part of the Commonwealth or a court having jurisdiction in appeal from any such court; or is qualified to practice as an attorney-at-law in a court in Belize or as an advocate in a court in any other part of the Commonwealth having unlimited jurisdiction in either civil or criminal causes or matters; and has been so qualified for not less than 15 years.

An appeal shall lie from decisions of the Court of Appeals to Her Majesty in Council as a right in the following causes: A final decision in any civil, criminal, or other proceedings which involves a question as to the interpretation of the Constitution; and such other cases as may be prescribed by the National Assembly.

TABLE III
BOARD OF JUDICIARY

<u>NAME</u>	<u>TELEPHONE</u>
George Cecil Rowle Moe, Chief Justice of the Supreme Court	02-7256
Rajanathan Rajasingham, Justice of the Supreme Court	/
H. B. Knight, Registrar of the Supreme Court	02-2053
George Singh, Chief Magistrate Magistrate Court	02-7164

THE PUBLIC SERVICE

The Constitution establishes a Public Service Commission consisting of a Chairman and twelve other members including as ex-officio members, the Chief Justice and a Justice of the Supreme Court designated by the Chief Justice, the Permanent Secretary to the Ministry of Defense, the Commandant of the Belize Defense Force, the Commissioner, other than the ex-officio members, are appointed by the Governor-General. Members of the Commission, except the ex-officio members, cannot hold an elected or appointive public office.

The power is vested in the Commission to appoint persons to hold or act in offices in the public service, to exercise disciplinary control and the removal of such persons from office for cause. In the exercise of its functions, the Commission is so organized that of the twelve members other than the Chairman:

- four members are responsible for matters relating to the public service other than the judicial and legal services and the police force;
- two, being ex-officio, the Chief Justice and a Justice of the Supreme Court designated by the Chief Justice, are responsible for matters relating to the judicial and legal services;
- four, of whom the Permanent Secretary to the Ministry of Defense and the Commandant of the Belize Defense Force are ex-officio members, are responsible for matters relating to the military services; and
- two, of whom the Commissioner of Police is an ex-officio member, are responsible for matters relating to the police force.

LOCAL GOVERNMENT

This Country is divided for administrative purposes into six districts: Belize, the region around the former capital; Cayo, in the interior, Corozal, in the north; Orange Walk, in the northwest; Stann Creek, south of Belize; and Toledo, in the south. The municipal affairs of Belize City are administered by a City Council, and those of Corozal Town, San Ignacio, Orange Walk Town

and Benque Viejo del Carmen, Dangriga, Punta Gorda and Monkey River Town, are administered by District Town Boards, the Chairmen of which are elected by the members. The Belize City Council and the District Town Boards are wholly elected on the basis of universal adult suffrage.

TABLE IV

TOWN BOARDS (7 Members elected for two-year terms)

COROZAL DISTRICT

Corozal Town	PUP	Mayor	Gabriel Hoare 6-1st Street South	04-2072
		D. Mayor	Jose Mai	
Orange Walk	Mixed PUP/UDP	Mayor	Leopoldo Briceno 15 Lover's Ln, OW	03-2006

CAYO DISTRICT

San Ignacio	UDP	Mayor	Domingo Crue, Jr. King Street	092-2035
		D. Mayor	Anatanacio Quiterio	
Benque Viejo Del Carmen	UDP	Mayor	Pedro Guerra Mena Corner George & Park Street	093-2020
		D. Mayor	Carlos Leon 55 George St., BVDC	093-2023

STANN CREEK DISTRICT

Dangriga	UDP	Mayor	Theodoro Castillo 65 Magoon St.	05-2049
		D. Mayor	Mrs. Doris Garcia	

TOLEDO DISTRICT

Punta Gorda	PUP	Mayor	Leith Usher Main Street	07-2043
		D. Mayor	Paul Mahung	

CITY COUNCIL (9 Members elected for three-year terms)

BELIZE CITY	PUP	Mayor	Alvan Fuller 6 Racecourse St.	2433
		D. Mayor	Miss Gloria McField 5256 7th St.	44376

POLITICAL CONDITIONS

The political party system in Belize began in 1950 with the formation of the People's United Party (PUP). The primary purpose in the formation of

the organization was to bring about change in Belize, that is, that every Belizean would share in the wealth of the nation and to end the colonial system. Party politics appear to have been developed on a sound basis, and have not relied on racial appeals. However, various ethnic problems exist in the form of population sectors that remain generally separate, although they have not as yet reached the point of open opposition.

The People's United Party (PUP), marked by a Christian Democratic ideology, finds wide support in the Spanish and Mayan speaking population. As a general principle, it favors closer ties with Central America. The PUP has maintained its dominance in all the elections since 1961, and presently holds 13 of 18 seats in the House of Representatives. The Prime Minister, George Price, is the leader of the PUP.

The National Independent Party (NIP) was formed in 1958 as the result of a split from the PUP. At the time, the leader of the NIP was Philip Goldson, formerly a political ally of George Price. The NIP favored stronger ties with the Caribbean and British West Indies. The effectiveness of the NIP was marginal.

The Opposition Party, United Democratic Party (UDP) is led by Cirl O. Thompson. The UDP holds five seats in the House of Representatives.

ELECTIONS

Elections, by law, are held every five years. Every citizen of Belize who has attained the age of eighteen years and who satisfies the requirements of the Representation of the People Ordinance of 1978 shall have the right to vote. Votes are cast in a secret ballot.

In the general elections, the first under the 1964 Self-Government Constitution, held on March 1, 1965, the Peoples United Party (PUP) led by George Price won 16 elective seats and obtained 57.8 percent of the total

votes polled. All seats were contested by the National Independence Party (NIP) which obtained 39.3 percent and won two seats; and two divisions (Orange Walk North and Orange Walk South) were contested by independents. The total votes polled came to 26,431 representing 69.8 percent of the 37,860 registered voters.

The second general election under the 1964 Constitution was held on December 1, 1969. The Peoples United Party (PUP) led by George Price won 17 elective seats and obtained 58.02 percent of the total votes polled. The National Independence Party (NIP), shaken by dissent within the party, formed a coalition with the People's Development Movement, made up of former NIP leaders who had broken away from the party and formed their own party. The NIP-PDM coalition won one seat, the Albert Division, which was recaptured by Philip Goldson, NIP leader. There were 29,823 registered voters at the time of election; 22,377 votes were polled representing 75.3 percent.

The Peoples United Party (PUP) won 12 seats and the Opposition (UDP) six seats in the December, 1974 election. The UDP members for Toledo South later crossed the floor to join the PUP. There were 23,811 votes polled representing 70.6 percent.

In the last election held in Belize on November 21, 1979, the PUP won 13 of the 18 seats in the House, and the Opposition Party, United Democratic Party, took five. The PUP obtained 52 percent of the votes cast; the UDP won 47 percent; and the Toledo Progressive Party (TPP) took one percent.

MEMBERSHIP IN INTERNATIONAL ORGANIZATIONS

Shortly after independence, besides remaining in the British Commonwealth of Nations, Belize became a member of the United Nations, the Caribbean Community, the Caribbean Development Bank, International Monetary Fund, the

CHAPTER THREE

DEFENSE AND DISASTER PLANNING

GENERAL

For many years Great Britain has maintained a military presence with the RAF and British Army to thwart any forceful invasion of Belize by Guatemala. With the dispute with Guatemala unsettled, the British agreed to maintain this presence, even after independence, for as long as is necessary. In January 1978, a small Belize Defense Force was started under the training of the British Army. Since independence, the U. S. Government is also assisting in the training of Belizean military personnel.

Currently, it is estimated that 4% of the GNP is allocated on defense. About 21,000 Belizean males are fit for military duty with 1,600 reaching military age annually.

BELIZE DEFENSE FORCE (BDF)

The BDF was formed on 1 January 1978 as an amalgamation of the Police Special Force (PSF), a para-military police company, and the Belize Volunteer Guards (BDG), a Home Guard-type organization with a distinguished history dating back to 1830.

On formation, the BDF had a strength of 2 Regular Company and 3 Volunteer Companies; the Regular element has now increased to 3 Companies, plus training, administration and support companies, and in addition have a military band. The Volunteer Companies are currently at about 90% of their established strength. The BDF is equipped as an air portable battalion with light infantry. They have SLRs and Armalities, GPMG, 81mm Mortars and 84mm MAW.

On August 12, 1983, an Air Wing was commissioned with two (2) British Defender Aircraft. These twin engine aircraft are fitted with mounts that

can carry anything from machine guns to air to air or air to ground missles. The capability of the aircraft are numerous; however, in normal situations, the aircraft will be used for patrol duty over land and sea.

During late 1983, the BDF will receive two military patrol boats which will form the BDF Maritime Wing. Personnel to operate these patrol boats are now undergoing training.

The aim of Belize has been to create a balanced force representing the country as a whole. Thus, there is a good proportion of Indians and Spanish speakers, as well as women in the BDF. The wages are relatively good, and recruiting is easy, with 3 to 4 applicants for every available space. Recruit training is 14 weeks, and is very similar to the British Army System. Most outside courses are done in the United Kingdom, but they have recently begun to use U. S. facilities in Panama to train personnel for the Maritime and Air Wings, and in Jungle Operations.

The Loan Service Team (British) has recently expanded to assist with the expansion of the BDF, and currently numbers 13 Officers and Warrant Officers, including 2 RN and 2 RAF Personnel.

Although still relatively inexperienced, the BDF is already assuming operational tasks in preparation for its eventual role. Given a few more years to complete its expansion and gain maturity, it should be fully capable of fulfilling the role for which it has been designed. That role includes:

- first line of defense
- patrol operations along border
- control of drug traffic and civil disturbances
- coastal patrol and search and rescue activities
- control of insurgency and guerilla operations

DISASTER PLANNING

The former capital, Belize City, was destroyed by a severe storm in 1931, badly impeding the country's economy. Thirty years later, in 1961, Hurricane

"Hattie" with 200 mph winds accompanied by extensive flooding caused extensive damages again to the city. The city suffered so heavily that the Government decided to build an entirely new capital city, Belmopan, some 50 miles inland.

As a result of the damages caused by hurricane in 1961, the Government constructed and extended the number of both large and small hurricane shelters at various points throughout the country, and all coastal villages and towns now have at least one strong reinforced concrete building for this purpose.

An elaborate hurricane plan has been established for the country of Belize with separate plans for each district. The Local Emergency Organizations are responsible to the Minister of Labor, Social Services and Community Development for keeping their own hurricane plans under review.

The Hurricane Plan for Belize establishes a Central Emergency Organization composed of the Governor-General and the Cabinet with the Secretary of the Cabinet as secretary; the Governor-General and Prime Minister being Co-Chairmen. It is responsible for approving the plans by sub-committees and the overall plan. The overall direction and control of hurricane precautions and post-hurricane action will rest in the hands of the Central Emergency Organization.

Eleven sub-committees are charged with the task of preparing Hurricane Precautionary Plans for consideration by the Central Emergency Organization. Ministries have begun allocated responsibility for these sub-committees as follows:

Prime Minister:	Information and Communications and Warnings Sub-Committee
-----------------	---

Ministry of Home Affairs:	Search, Rescue, and Initial Clearance Sub-Committee
---------------------------	---

Ministry of Energy & Communications:	Electricity and Water Supplies Conservancy Sub-Committee
--------------------------------------	--

Ministry of Works:	Transport Sub-Committee
--------------------	-------------------------

Ministry of Health Housing & Cooperatives:	Housing and Shelter; Medical and Relief Measures; and the Identification and Disposal of the Dead Sub-Committee
Ministry of Natural Resources: .	Collection and Control of Food and Materials Sub-Committee
Ministry of Labor, Social Services, & Community Development:	Distribution of Food and Materials and Labor Sub-Committee

CHAPTER FOUR
PUBLIC HEALTH

HEALTH CONDITIONS AND STANDARDS

Demographics

The population of Belize is very young as over 50% are children and adolescents. For this reason the infant mortality and morbidity rates are significantly higher than other Caribbean countries. The fertility rate is high with 200 births in 1981 per 1,000 women in reproductive age years. The rate of natural population increase is 3% per year. Eight urban centers contain 52% of the population. The country is divided into six districts with Toledo the most rural district. The population is growing differently in each district with most growth in the northern districts. Table I illustrates the population by district and the number of hospital beds and health centers by district.

TABLE I
Population and Health Facilities by District

DISTRICT	POPULATION	HOSPITAL BEDS	BEDS/1000	HEALTH CENTERS
Belize	50801	174	3.4	5
Corozal	22902	28	1.2	2
Orange Walk	22870	28	1.2	2
Stann Creek	14181	55	3.9	4
Cayo	22837	73	3.2	3
Toledo	11762	30	2.6	6

Mortality

In 1981 the infant mortality rate was 47 per 1,000 population; however, it is felt this figure is low due to under reporting of infant deaths and immigration from neighboring countries. The general mortality rate is 60 per 1,000 population and the majority of deaths are not of the elderly.

Life expectancy in 1977 was calculated to be 67.7 years. Over the decade of the 1970's, there has not been a downward trend in the infant mortality rate. The infant mortality rate in Belize is greater than Costa Rica and Jamaica, similar to El Salvador and Mexico, but less than Guatemala and Paraguay.

In 1981, one-fourth to one-half of infant deaths in Belize occurred in the first month of life. Infectious diseases due to unsanitary conditions account for much of the infant mortality. Gastroenteritis accounts for one-third due to pneumonia, and one-third due to other causes such as malnutrition and parasitic infections. Sixty-three percent of infant deaths due to gastroenteritis occurred in children under the age of one. Infectious diseases show little decline over the past decade.

Morbidity

Communicable diseases, particularly diarrhea, associated with gastroenteritis in young children, represent a significant cause of illness in Belize. In 1981, 800 children were hospitalized for gastroenteritis. Water borne diseases associated with unsafe water supplies are a significant health problem and accounts for much of the gastroenteritis in young children. The typhoid fever rate in Belize is higher than most of the Caribbean Islands and Central America.

While pertussis is difficult to recognize in a partially immunized population, tetanus, diphtheria, and polio are not major health problems.

One-third of the children are immunized against measles by the age of one, and 55% of the children under the age of one are fully immunized against diphtheria, whooping cough, tetanus, and polio. By the age of four, 100% of the population has been immunized.

Malaria is a highly significant health problem among Belizeans and has shown a dramatic increase over the decade of the 1970's. In 1970, there were 33 cases reported while in 1981, 2072 cases were reported country-wide of both vivax and the deadly falciparum type. In 1982, 8,000 cases were reported country-wide. It is felt that the falciparum type which accounts for 5% of malaria cases is being brought into Belize by refugees from El Salvador and Guatemala. Because the malaria prevention has not been active due to lack of funds and equipment, malaria continues to increase dramatically to the point that Belize has the highest malaria rate in Central America.

The malaria problem has been compounded by **immigration of refugees** fleeing from neighboring Latin American countries, particularly El Salvador and Guatemala. For personnel entering Belize, oral malaria prophylaxis is essential. The highest incidence of malaria is found in the northern districts of Orange Walk and Corozal. Dengue and yellow fever are also on the increase.

TB is a disease of adults in Belize and while the rate is not declining, it is lower than other Caribbean countries. As of August 1982, 30 cases had been detected and reported.

Dental disease is rather prevalent affecting 90% of the population and is primarily treated by extractions.

Nutrition

Energy-protein malnutrition is widespread in infants and children in Belize. Anemia coupled with hookworm and malaria infection presents a major health problem in children. Women of child bearing age are also

nutritionally depleted. The poor nutrition is directly tied to economic conditions. The combination of poor nutrition, parasitic infection, and gastroenteritis in children presents a major health problem particularly in the slum areas of Belize City and in the rural farming areas of Toledo and Stann Creek.

With regards to nutrition, at-risk groups are children 6-36 months of age during the weaning transition, women in the late months of pregnancy, and lactating women.

Environmental Health

Most environmental health activities are directed toward the provision of safe water supplies. While the Ministry of Health reported in 1981 that 90% of urban dwellers have safe water, Belize City still has significant problems in providing safe water as contamination of the drinking water by sewage is a major health problem. Although the water is chlorinated when it leaves the plant, the water supply pipes are old and in many cases pass thru open sewers thus increasing the opportunity for contamination. Presently, a modern water system has been constructed at Double Run near Belize City, but is not completely operational. All districts in the country have an approved water system, and the Public Health Inspectorate works closely with the Water and Sewage Authority. In rural areas, the main water supply is wells.

Belize City, the major urban population center, continues to dump raw sewage in ditches in town, in the Belize River and surrounding ocean waters creating significant health problems. In the slum areas of Belize City and rural areas of the country, latrines and outhouses are utilized contributing to the increased incidence of parasitic infections and communicable diseases. Screens on windows are usually absent even in eating and market facilities, again contributing to communicable diseases, particularly gastroenteritis.

While Belize City has garbage collection, garbage is frequently not placed in containers, again creating potential health problems.

Food and meat control are very loose and there is poor hygiene in slaughter houses. Rabies control is focused primarily in the Belize, Cayo, and Orange Walk districts. In 1980, 18 rabid animals were confirmed, and 5,000 dogs were immunized country-wide.

There is minimal environmental pollution from the sugar cane and citrus industry which affects the New and Stann Creek Rivers. There is no occupational safety programs in the country.

General Health Conditions and Resources

Health conditions in Belize are poor and directly related to economics and subsequent unsanitary conditions aggravated by a tropical climate. During the rainy season from May until January, public health problems tend to become aggravated particularly malaria and the provision of safe water supplies.

Sanitation is extremely poor and the rate of communicable disease, particularly gastroenteritis, is high stemming from unsafe water supplies and general unsanitary conditions. All water used from consumption or food preparation should be boiled or treated chemically even in major hotels. Great care should be utilized in the consumption of food stuffs, and restaurants chosen carefully. Oral malaria prophylax is essential and proper personal hygiene, such as handwashing, should be emphasized.

Medical care and resources are limited particularly in rural areas. Medical attention for any specialized problem will have to be sought out of the country; therefore, preventative health measures cannot be emphasized enough. The tropical climate tends to aggravate minor health problems, creating more serious health difficulties.

Primary Health Care Facilities

Country-wide there is a network of 36 health centers staffed by nurses. Distribution of health centers by district was illustrated above in Table I. The health care center is roughly analogous to county health departments in the United States. Health Centers are usually the first contact with individuals entering the health care system, but their mission is primarily preventative in theory. Health Centers provide maternal and child health care, immunizations, health education and nutrition, first aide care, and midwifery in rural areas. Eight health centers are located in district capitals and in Belmopan while the remaining 28 are located in rural villages of 500 to 1500 inhabitants or in smaller remote areas. Six are not presently in operation (1983) due to lack of staff and facilities. Actual coverage of rural population by health centers is far from complete as 25% of the rural population lacks any health service.

There are five mobile health units that travel around and operate from health centers in rural areas, but 34% of the rural population has inconsistent mobile clinic coverage. Since there are few ambulances in Belize, mobile clinics often have to provide transportation to health centers or hospitals.

Secondary Care Facilities

The largest hospital in Belize is the Belize City Hospital with 174 beds and a 12 bed neonatal unit. However, the hospital is in a poor state of repair and has limited capacity for specialization. Out patient facilities are overcrowded and all service areas are in need of replacement. There are six other district hospitals, in Belize. District hospitals are single story with open wards. Only three have x-ray facilities; only Orange Walk and Belmopan have adequately staffed labs and have the capability only for minor surgery. Belmopan Hospital has the capability for major surgery as does

Belize City Hospital. All district hospitals are ill-equipped making referrals to Belize City Hospital heavy and creating a difficult patient-load. Transportation to all district hospitals is inadequate. Location of district hospitals is shown on Table II.

TABLE II

DISTRICT	HOSPITALS
Toledo	Punta Gorda
Stann Creek	Dangriga
Corozal	Corozal
Orange Walk	Orange Walk
Cayo	Belmopan and San Ignacio

Ancillary Services

The National Laboratory is located in Belize City but is a distance from Belize City Hospital creating problems in the transportation of specimens and lab reports. Belmopan, Orange Walk, and Punta Gorda also have labs with limited capability.

There is a blood bank at Belize City Hospital, but cross-matching is done at the National Laboratory, which again creates problems. Pharmacies are maintained at the Belize City Hospital, six district hospitals, and three health centers. The central supply and distribution point for drugs and medical supplies is located at the Belize City Hospital and are dispensed to other district hospitals and health centers. However, frequent shortages are common, and poor storage facilities contribute to deterioration of drugs and other supplies. Due to budgetary limitations, many drugs and medical supplies are purchased on the open market as opposed to wholesellers at considerably higher prices which limits quantity.

There is also a new veterinary laboratory located in Belize City.

Specialized Institution

The Rockville Hospital, located 22 miles from Belize on Western Highway is primarily a psychiatric hospital housing from 150-200 patients. Psycho-tropic medications are extremely limited and there is no psychiatrist in Belize. Approximately 75% of the patients are admitted with a diagnosis of schizophrenia.

Private Health Facilities

The Mennonites at Blue Creek operate a small clinic and the Lions Club has a small clinic at San Pedro on Ambergris Key. There is a small six bed hospital at Santa Elena, Cayo District, owned by a private doctor.

Health Service Programs

Malaria has shown a dramatic increase in Belize with 8,000 cases in 1982. The districts of Corozal and Orange Walk have the highest incidence of malaria and the lowest number of hospital beds than any other medical districts in the country. Next, to the medical district of Belize they have the highest population.

Falciparum malaria is on the increase with the principal vector being the *A. Albimanus* mosquito present in all districts. The *Aedes Aegypti* mosquito is the vector of dengue and yellow fever. In 1967, Belize was free from dengue and yellow fever but reinfestation from neighboring countries occurred by 1970. In 1977 the mosquito was found to be DDT resistant; however, no further studies have been conducted. Increased numbers of refugees from El Salvador, Guatemala, and Honduras have complicated the picture.

Generally, malaria has increased dramatically because the active spraying program has ceased due to lack of funds, chemicals, and equipment. Moreover,

malaria prophylaxis is not available to the general populace due to cost and non-availability of drugs.

In June of 1983, two malaria experts from the Ministry of Health in Venezuela met with health officials in Belize to discuss the development of a formal malaria control cooperation program between the two countries.

TB Control Program

Diagnosed TB cases are referred to the King Park Health Center. In 1980, there were 21 cases diagnosed and 33 cases in 1981 which is low in comparison to other Central American countries.

Sexually Transmitted Diseases

There has been a steady decrease in syphilis over the past five years. However, many cases are not reported, and patients frequently receive ineffective treatment over the counter at local stores.

Toledo Primary Health Care Project

Early in 1982, the Ministry of Health in cooperation with Project Concern International, a private non-profit service organization based in San Diego, California, initiated a pilot project health program in the Toledo District to train community health workers. The Toledo District was chosen due to its many environmental health problems.

Primary health care is described as the level of medical attention that can be delivered by a rural health nurse. Presently, the Ministry of Health, Primary Health Care Program extends country wide through a network of health centers in rural communities throughout the country. Each health center is manned by a fully qualified rural health nurse who is under the supervision of the District Medical Officer.

However, the Primary Health Care Project has as its goal to place a

community health care worker in every village. These workers will be selected from their own communities and will be trained at health centers. Training will include basic diagnosis, suturing, taking blood tests, and treating patients sick with parasitic diseases such as gastroenteritis and malaria, midwifery and child care. They will also be taught fundamental office practices for keeping a filing system with medical records of all patients.

The base of the training project is now being broadened to include lectures in public health such as proper sanitation methods and the importance of ensuring safe drinking water supplies so community health workers can provide health education.

Sister Anna Nally, a Nurse Practitioner, works in the Village of San Antonio and heads the training program for the Toledo pilot project. If this program is evaluated as successful, it will be extended to the other districts in Belize.

HEALTH MANPOWER AND TRAINING

Medical and Nursing Manpower

Table III illustrates the medical and nursing manpower as of 1981.

TABLE III
Medical and Nursing Manpower

Speciality	Total	Government		Private Practice
		Full-Time	Part-Time	
I. Physicians	55	31	2	22
Pub. Health	2	2		
Gen. Practive	31	29	1	12
Surgery	3	3		
Internal Medicine	1	1		
Pediatrics	1			
Radiology	0			
OB-GYN	2			
Anesthesiology	0			
Ophthalmology	15	1	1	

TABLE III, Continued.....

Speciality	Total	Government			Private Practice
		Full-Time	Part-Time		
II. Midwives	115	15			100
With Diplomas	15	15			
Without Diplomas	100				
III. Nurses	231	213			18
Grad. Nurses	118	113			5
Practical	93	87			6
Pharmacist	1				1
Pub. Health Insp.	17	17			
Lab Tech	10	9			1
X-ray Tech	7	6			1
Nutritionists	1	1			

There is no school of medicine in Belize so the majority of physician and nurse training takes place in Jamaica at the University of the West Indies and the West Indies School of Public Health Programs for Nurse Practitioners at St. Lucia.

In November of 1982, the Minister of Health, Mr. Assad Shoman, received approval from the House of Representatives to amend the existing law regulating the standard of practice in the medical profession.

The new move now provides for the replacement of a Medical Registration Board with a Medical Council. It also introduces a new system of registration and provides for the disciplinary control of doctors.

It makes provision for improved ethical standards of practice in the medical profession in Belize based on the need for compulsory service especially in the rural areas of the country as a pre-requisite for registration.

The Medical Council replacing the old Medical Registration Board will be made up of five medically qualified professional persons. The Chief Medical Officer will serve as the ex-officio member of the Council, and he will be joined by one doctor and one dentist appointed by the Minister of Health and another

doctor and a dentist appointed by the Minister of Health on the advice of the Belize Medical and Dental Association..

The new Medical Council will have more clout than its predecessor in that apart from having the responsibility to examine all applications for the registration of a doctor, the Council may now set an examination to determine the qualification of applicants.

It will also deal with complaints alleging poor standards of practice and breaches of professional ethics against registered doctors and dentists.

Under the new system of registration the law now provides for measures to ensure that more rural communities will be served by a fully qualified doctor who will be expected to reside in a rural area—a condition before a doctor will be allowed to go into private practice.

Actually there are three forms of registration which the Medical Council will consider.

They are:

1) PROVISIONAL REGISTRATION for a doctor who has just completed his training and has acquired his first medical degree for whom registration as an intern will be free.

2) TEMPORARY REGISTRATION is the applicant is prepared to work full time with the Government for two years or willing to work in a rural area specified by the Minister of Health for the same period or if the applicant is prepared to provide voluntary service.

3) FULL REGISTRATION which will only be considered by the Medical Council after an applicant has been working under the conditions stated above before he or she will be allowed to go into private practice. On the approval of his application a doctor will be required to pay a registration fee of \$100 and an annual fee of \$50.

The overhauled law imposes more stringent conditions to ensure the practice of community medicine especially in the rural areas where it is most needed. It also provides for better controls to safeguard the public against medical malpractice.

TABLE VII Continued....

NAME	LOCATION
Shamah, Elsa Carmen	-----
Swift, Geraldine Elizabeth	Belize City
Stanley, Andrew Jackson	Belize City
Sylvestre, Maria Elena Lopez	Belize City
Trapp, Eugene Watkin	Belize City
Trapp, Percival Lincoln	Belize City
Usher, Victor Edward	Belize City
Wallen, Arthur Horatio Douglas	Belize City
Young, George Walford	Belize City

TABLE VII

List of Chemists and Druggists as of 31 December 1983

NAME	LOCATION
Arthurs, Kenneth Leopold	Belize City
Augustine, Floyd A.	Belize City
Barrow, Arthur	Belize City
Bennett, Hugh Llewellyn	Belize City
Braddick, Luis Rowland	Belize City
Brown, Anthony Edward	Belize City
Bevans, Oona Leanora	Belize City
Burlett, Cheryl Ann	Belize City
Christie, Mark Anthony	Belize City
Blarke, Benita Bandelia	Belize City
Coye, Anna Luisa	Belize City
Davis, Elmer Idelfonso	Belize City
El Amin, Dana Jean Olivia	Belize City
Encalada, Jose Santiago	Belize City
Erskin, Barrington, A.	Belize City
Fairweather, Douglas Raymond	Belize City
Gabourel, Fredrick Michael	Belize City
Gault, Jerome Francis	Belize City
Genus, Carolyn Pamela	Belize City
Fill, Roy Stanley	Belize City
Gordan, Irene Louise	Belize City
Hamilton, Desmond	Belize City
Guerra, Gloria Maria	Belize City
Haylock, Valen Michael	Belize City
Hunes, Lloyd Windell	Belize City
Isuacs, Leslie Raymond	Belize City
Kerr, Noreen Eleanor	Belize City
Kingston, Sandra Isolene	Belize City
Lashley, Raymond Granville	Belize City
Lewis, Linda Geraldine	Belize City
Leslie Samuel Homer	Belize City
Longsworth, Norman Norris	Belize City
Lopez, Rodolfo	Belize City
Matthews Cecil Wilford	Belize City
Martinez, S. Cardo Abigail	Belize City
McField, William	Belize City
Menzies, Rosalie Evelyn	Belize City
Panton, Neville Roy	Belize City
Patten, Calvin Derrick Denfield	Belize City
Prince, Maria Callola Pinto de	Belize City
Rabbani, Mirzamoir	Belmopan
Ramirez, Rosaria solis de	Belize City
Rodriguez, Maria N.	Belize City
Shamah, Albert Richard	Belize City

Table VI Continued....

NAME	ADDRESS	QUALIFICATION
Jean Humes	12 Cor. Racoon Seagull St.	General & Midwifery
Norma Bainton	Ladyville Belize	RN
Julia Castillo	c/o Belmopan Hospital	SRN Dip. Nursing Admin.
Julie Tench	Euphrates Avenue	SRN
Gloria Martinez	4th St.	RN
Evangeline Wade	Martin de Porres 46 Wilson St.	RN
Marion Casey	Belmopan	RN
Margery Delvalle	18 Gabourel Lane	RN
Yvonne Daley	Punta Gorda	RN
Judith Fullap	24 Mex Avenue	RN
Estelle Hernandez	Amara Avenue	RN
Myrian Saldivar	Belmopan	RN
Martha Bermudez	36 Cleghorn St.	RN
Olivia Tillett	3808 Antelope St.	RN
Karla Schmitt-Craig	P. O. Box 47 Belmopan	BSC Nursing USA
Judith Behtendt	c/o Health Centre	BSC Nursing USA
Dianne Birkey	P. O. Box 70 Belmopan	RN USA
Honorah Demizio	c/o Punta Gorda Hospital	Diplomat Nursing USA
Esther Harsberger	P. O. Box 62 Punta Gorda	RN USA
Jenefar Clusher	21 Santa Barbara St.	SRN
Patricia Beet	5674 Gentle Ave	RN
Gilbert Chan	Kings Park	
Mathilda Vilentine	59 Pickstock St.	RN
Verna Morris	c/o Stann Creek Hospital	RN
	9-2nd St.	RN
Janine Grant	Kings Park	
Jennifer Bowman	6 Craig St.	RN
Patricia Arnold	6 Dunn St.	RN
Cynthia Guild	33 Banack St.	RN
Marie Castillo	2 Barracat St.	RN
Jaynell Collins	17 Cuello's Alley	RN
Geraldine Franklin	6 Price Alley	RN
Joan Livingston	22 Fabers Road	RN
Alice Lopez	8 Mayflower St.	RN
Sarita Miskall	29 Mahogany St.	RN
Bernadine Richards	101 Albert St.	RN
Cornelia Swift	3176 Coffin St.	RN
	64 Vernon St.	RN

Table VI Continued....

NAME	ADDRESS	QUALIFICATION
Eleanor Jacobs	33 Mahogany St.	General & Midwifery
Sonia Burke	13 West Collet Canal	General & Midwifery
Guillermina Heredia	9 Mopan St.	General & Midwifery
Martha Sosa	San Ignacio	General & Midwifery
Carla Young	9 Mopan St.	General & Midwifery
Audrey Hale Chajin	3122 N. Emerson St. Portland, Oregon 97217	RN (USA)
Catherine Jansen	P. O. Box 680 Belize City	RN (USA)
Joan Crighton	Cor. 14 & B St. Kings Park	SRN Jamaica (Midwifery)
Lorna McDougal	16 Nargusta St. Belize City	General & Midwifery
Marion Schoeninger	P. O. Box 67 Orange Walk	RN (USA)
Maryse Richardson	Methodist Manse Corozal Town	SRN
Adelicia Enriquez	Medical Dept. Dangriga	General
Martha Hcare	Corozal Town	General & Midwifery
Sandra Rowland	Fabers Road	General & Midwifery
Paula Valdes-Luna	Teakettle Village Cayo	General
Hazel Castro	Punta Gorda, Toledo	General & Midwifery
Dorothy Nieman	56A Vernon St.	General
Marilyn Dawson	18 Yarborough St.	General
Margaret Ferguson	141 Cemetery Road	General & Midwifery
Pearl Smith	73 Freetown Road	General & Midwifery
Marjorie Parks	15 Black Orchid St.	General
Sylvia Pollard	Barrack Road	General & Midwifery
Erica Valentine	c/o Medical Department Dangriga	General
Mary Therese Coye	22-4th St. Kings Park	SRN
Jo Ann Harding	P. O. Box 1 San Pedro Ambergris Caye	RN
Yolande Luyendyl	Placencia .	RN Danish Reg.
Georgie David	c/o Methodist Manse	Nurse/Midwife
Consuelo Anderson	Corozal Calle del Mar	Haitian Registration
Valerie Jenkins	Belize City	RN & Midwifery
Vianny Paiz	22 Mohamadeli St.	RN & Midwifery
Beverly Tucker	16 Orange St.	RN & Midwifery
Raquel Vera	161 West Canal St.	General
Geraldine Flowers	c/o Punta Gorda Hospital 115 Neal Pen Road	General

Table VI Conintued....

NAME	ADDRESS	QUALIFICATION
Lewis, Mary	Punta Gorda	General & Midwifery
Neal, Louise	25 Kut Avenue	General & Midwifery
Smith, Jean	Western Road Mile 2	Nurse Practitioner
Haylock, Loretta	Belize City	General & Midwifery
McKenzie, Dorla	Kings Park	General & Midwifery
Penner, Kathryn R.	21 King St. Belize City P. O. Box 62	Nurse Practitioner General & Midwifery & P/Health
Nicholson, Claire B.	Orange Walk	R.N.
Price, Kathryn	Crooked Tree	R. N.
Salas, Agueda	Southern Foreshore	R.N. Diploma Nursing Ed.
McField, Rosita	Barrack Road	General & Midwifery
DePaz, Marie	Belize City	Nurse Anaesthetist
Leacock, Emelia	Corozal Town	General & Midwifery
Tablada, Vernetta	13 Hunters Lane	General & Midwifery
Urbina, Alva	Belize City	General & Midwifery
Vargas, Carmella	40 Vernon St.	General & Midwifery
Teakeil, Marilyn L.	Belize City	General & Midwifery
Garnett, Shelmadine	105 George St.	Nurse Practitioner
Locke, Gloria	Belize City	General
Smith, Ina	Orange Walk Town	General
Staine, Marina	55 Dean St.	General & Midwifery
Rebecca, St. Mary R.S.M.	Belize City	& P/Health
Dodsworth, Grace R.	P. O. Box 537	R.N.
Smith, Jennifer	Belize City	R.N. & Midwifery
Young, Allison M.	Princess Margaret Dr.	SRN Nursing Ed. Cert.
Therese Smith	Belize City	General
Ivorine Hemmans	Convent of Mercy	SRN SCM
	Belize City	R.N.
	11 Bocotora St.	R.N.
	Belize City	General & Midwifery
	P. O. Box 11	General & Midwifery
	Corozal Town	
	31 Lovely K Lane	
	Belize City	
	Cor. Fairweather	
	Rivero Sts.	

Table VI Continued....

NAME	ADDRESS	QUALIFICATION
Hall, Eleanor	Collet Canal Belize City	General & Midwifery
Musa, Joan	Princess Margaret Dr. Belize City	SRN
Jard, Penelope	344 Vernon St. Belize City	SRN SCM Education Cert.
Benguche, Patricia	West St. Belize City	General & Midwifery & P/Health
Spence, Helen	c/o Stann Creek Hospital Stann Creek	General & Midwifery
Clare, Olive	10 Johnson St. Belize City	General & Midwifery
Henry Lillian	San Ignacio	General & Midwifery
Bood Malva	47 Cleghorn St. Belize City	General & Midwifery & P/Health
Mahung, Shirley	Punta Gorda	General & Midwifery
Bradley, Yvonne	1609 174 St. N. York Belize City	General & Midwifery
Canton, Elida	Eymen Ave. Belize City	General & Midwifery
Smith, Georgia	North Front St. Belize City	General & Midwifery
Garnett, Myrna	Neal Pen Road Belize City	General & Midwifery
Hensley, M	14 Kelly St. Belize City	General & Midwifery
Leslie, Yvonne	19 D St. Kings Park	General & Midwifery & P/Health
Olivas, Sr. Elsa SNC	Pallotti Convent Belize City	SRN SCM
Longsworth, Laura	78 Bella Vista Belize City	General & Midwifery
Henriquez, Ellen	40 New Road Belize City	General & Midwifery Advanced Nursing Educ.
Burgess, Minerva	2727 Antelope St. Belize City	General & Midwifery
Flores, Christine	3 West St. Belize City	General & Midwifery
Simmonds, Arnandina	San Ignacio	General & Midwifery & P/Health
Driedger, Mary	Blue Creek Mennonite	General & Midwifery
Chun, Incentia	Toledo - San Antonio	General & Midwifery & P/Health
Goff, Florence	Corozal Town	General & Midwifery
Henry, Anita	Barrack Road Belize City	General & Midwifery

Table VI Continued....

NAME	ADDRESS	QUALIFICATION
Patten, Hannah Prudence	33 Albert St. Belize City	General, Midwifery & P/Health
Bucknor, Emily Eugenia	3 Queen's Square Belize City	General, Midwifery & P/Health
Flores, Sylvia Estella	5366 18th St. Kings Park	General & Midwifery
Lovell, Belle Claire	36 Iguana St. Belize City	General & Midwifery
Pike, Ianthe Kay	54 Cor. King/West St. Belize City	General & Midwifery
Scott, Elizabeth	Pallotti Convent Belize City	S.R.N., S.C.M.
Garbutt, Avril M.	Racecourse St. Belize City	General, Midwifery & P/Health
Hall, Mavis	66 Cor. King/Plues St. Belize City	General & Midwifery
Marin, Paula Inis	28 New Road Belize City	General & Midwifery
Leslie, Louise	139 New Road Belize City	General & Midwifery
Moguel, Josefina A.	Carolina Corozal District	S.R.N., S.C.M.
Burns, Cora	Orange Walk Town Orange Walk	General & Midwifery
Cuellar, Viola	c/o Orange Walk Hospital Orange Walk	General & Midwifery
Daniels, Gloria	Cleghorn St. Belize City	General & Midwifery
Lemmott, Evadne	4 Heusner's Crescent Belize City	General & Midwifery
Nunez, Mavis	211 Far West St. Belize City	General & Midwifery
Lashley, Gretel	67 Euphrates Ave. Belize City	Nurse Anaesthetist General & Midwifery
Collymore, Grace	Neal Pen Road Belize City	Nurse Anaesthetist General & Midwifery
Johnson, Glenda	Santa Maria St. Belmopan	& P/Health General & Midwifery
Flowers, Pearl E.	12 Waight St. Belize City	General & Midwifery
Courtenay, Audrey V.	76 Bella Vista Belize City	Nurse Anaesthetist SRN CMBI
Swift, Winnifred	Princess Margaret Dr. Belize City	SRN Educational Certificate
Amoa, Hilda	40 Daily St. Belize City	SRN SCM

TABLE VI

List of Registered Nurses and Midwives as of June 1983

NAME	ADDRESS	QUALIFICATION
Hall, Myrtle	44 Glenn St. Belize City	General, Midwifery P/Health
Felix, Exine	Cor. St. Peter & Guadeloupe St./Belize City	General & Midwifery
Gill, Thelma	313 East Canal St. Belize City	General & Midwifery
Lopez, Arlene	292 North Front St. Belize City	General & Midwifery
Goff, Delysia Palmerston	Baymen Ave Belize City	General & Midwifery Advanced Nursing Admin.
Wright, Hazel Mae	6th St., Kings Park Belize City	General & Midwifery
Findley, Joyce Estella	63 Neals Pen Rd. Belize City	General & Midwifery
Gibson, Lillian Havilla	11-2nd St. Kings Park Belize City	General & Midwifery
Young, Norma Lyndyth	21 Regent St. Belize City	General & midwifery
Gentle, Sylvia E.	25 Freetown Rd. Belize City	General, Midwifery & P/Health
Gillett, Natalie Alicia	10 Mex Ave Belize City	General & Midwifery
Grant, Evaine L.	3 Bocotora St. Belize City	General & Midwifery
Hyde, Marie W.	19 Albert St. West Belize City	General, Midwifery & P/Health
Ottley, Norma	c/o Nazarene Mission Belize City	General & Midwifery
Rhys, Catherine E.	9 Far West St. Belize City	General, Midwifery & P/Health
Robateau, Leolin E.	51 Dean St. Belize City	General, Midwifery P/Health
Saldivar, Celia	43 Hyde's Lane Belize City	General & Midwifery
Brannon, Erlene B.	Unity Blvd.. Belmopan	General & Midwifery
Christie, Marie L.	Cor. 3rd/Landivar St. Kings Park	General & Midwifery
Green, Nora Z.	80 A Victoria St. Belize City	General & Midwifery
Johnson, Shirley R.	Cor. 13th/F St. Kings Park	General & Midwifery & Advanced Nursing Educ.
O'Brien, Laurel A.	9 Collet Canal Belize City	General & Midwifery

TABLE V

Dentists and Their Location as of February 1983

NAME	ADDRESS	TELEPHONE
Awe, Salvador E.	2 A S Park St. Belize City	2027
Bennett, Christopher	Belize City	----
Buck, Irvin F.	Belize City	----
Curren, William S.	Belize City	----
Eyles, Charles	Belize City	----
Faulkner, Otho C.	Belize City	----
Graham, George A.	Belize City	----
Heusner, Leroy	Belize City	----
Hegar, Rene	85 New Rd. Belize City	45654
Marrufo, Luz M.	Belize City	----
Maldauer, Bertram S.	Belize City	----
Valle, Ramon P.	Belize City	----

Table IV Continued....

NAME	LOCATION	SPECIALITY
Skyers, George	-----	Medical Officer III
Raju, Meenavali	-----	Medical Officer III
Dr. Jazadeesh	-----	Medical Officer III
Cetina, Phillip	Belize City	Medical Officer III
Alfaro, Marlene	-----	Dental Surgeon
Peddy, T. V.	-----	Medical Officer III
Onatto, Abraham	-----	Medical Officer III
Onatto, Asha	-----	Medical Officer III
Amaya, Jose	-----	Medical Officer III

Current medical manpower for the country of Belize is denoted in

Tables IV, V, VI, and VII.

TABLE IV

List of Physicians as of 31 December 1983

NAME	LOCATION	SPECIALITY
Price, John	Belize City	Physician Specialist
Hoy, Dennis	Belize City	OB/GYN
Hoy, Gladys	Belize City	Medical Officer of Health
Vanzie, Errol	-----	Medical Officer of Health
Waight, John	Belize City	Surgeon Specialist
Patt, Gregorio	Belize City	Surgeon Specialist
Hegar Amin	Belize City	Ophthalmologist
Gough, Arleigh	Belize City	Pediatrician
Hawley, William	Belize City	Medical Officer of Health
Blanio, Oscar	-----	Pathologist
Cawich, Filiberto	Belize City	Physician Specialist
Chi, Pedro	Belize City	Surgeon Specialist
Escalante, Luis	-----	OB/GYN
Gamero, Artiero	-----	Medical Officer II
Lopez, Carlos	-----	Medical Officer II
Rosales, Jaime	Belize City	Medical Officer II
Fai, S.	-----	Medical Officer III
Peneau, H.	Belize City	Medical Officer III
Umasanber	-----	Medical Officer III
Toledo, Victor	-----	Medical Officer III
Murencio, Jose	-----	Medical Officer III
Quan, Edgar	-----	Medical Officer III
Cresco, Robert	-----	Medical Officer III
Venkataraman, S.	-----	Medical Officer III
Swamy, E.	-----	Medical Officer III
Sankiran, L. S.	-----	Medical Officer III
Cantos, Robert	-----	Medical Officer III
Rodas, Oscar	-----	Medical Officer III
Reddy, M. V. S.	-----	Medical Officer II
Rao, K. A.	-----	Medical Officer II
Raju, B. C. S.	-----	Medical Officer III
Osorio, Jorge	Stann Creek	Medical Officer II
Lopez, Jose	-----	Medical Officer II
Lisarragn, Victor	Belize City	Medical Officer II
Kashinasa, S.	-----	Medical Officer II
Gracia, J.	-----	Medical Officer II
Coyi, Marcillo	Belize City	Medical Officer II
Barbosa, B.	-----	Medical Officer III
Rodas, L.	-----	Dental Surgeon

Training Institutions

The Belize School of Nursing in Belize City offers a two-year practical nurse program and a one-year post graduate program. Applicants are required to have a high school certificate. Full program consists of three years of general nursing to include one year of mid-wifery.

Educationally, emphasis is on nursing care in a hospital setting, but emphasis is now shifting to community care. The rural health nurse is a graduate of the practical nursing and the mid-wifery program.

Belize College of Arts, Sciences and Technology

This institution located in Belize City offers a three year program in both medical technology and pharmacology.

Health Care Budget

Health care is allocated less than 10% of the national budget; however, actual yearly expenditures have been in excess of the amount budgeted.

Voluntary Organizations

Until Belize independence in 1981, the Belize Red Cross was a branch of the British Red Cross and received a substantial portion of its operating funds from British grants. Fundraising drives are now being utilized to replace British grants. In 1982, the Belize Red Cross budget totaled \$20,600. Over the past years, the Belize Red Cross has been active in the areas of health education such as practical first aid and home nursing, working with the handicapped, giving aid to former T B patients, assisting the needy, and relief work during natural disasters. In addition to these services, the Red Cross plans to emphasize preventative health care.

The Hospital Auxillary operates out of the Belize City Hospital and provides fund raising activities for upgrading services in the hospital. Similar organizations are being formed in other districts.

The Lions and Rotary Clubs also provide fund raising activities. Donations from banks and individuals for medical services are frequently made. The Sugar Labor Welfare Board donated the vans for the Mobile Health Centers.

The United States Peace Corps is presently active in Belize with 57 volunteers working in the seven districts of the country. Mr. William Parrin is the Peace Corps Director with the main office located in Belize City near the American Embassy. Primary program objectives are in the area of health and education. Program needs and emphasis is determined by the host country. A small medical clinic is also located at the Peace Corps office in Belize City for treatment of volunteers.

International Health Organizations

The Belize health community receives various aid and technical assistance from the United States Agency for International Development (USAID), the Pan American Health Organization/World Health Organization (PAHO/WHO), the United Nations Children's Fund (UNICEF), and the American Public Health Association (APHA).

CHAPTER FIVE
PUBLIC WELFARE

SOCIAL SECURITY

With the assistance of the International Labor Organization, Belize organized and implemented on 1 June 1981, a Social Security Program. The program is administered by the Belize Social Security Board and is temporarily housed in the Belmopan Civic Centre. By June 1, 1981, 22,000 persons had been registered. The Social Security Program is available only to employed persons and offers three types of benefits: long-term pensions, short term-maternity, sickness and injury benefits-pensions.

Both sickness and maternity benefits provide for payments of 60 percent of insurable earnings during the benefit period. Insurable earnings are calculated according to a table which covers the salaries of the bulk of the working population. The table ranges from monthly salaries of under \$174.00 to \$447.00 and over. A female employee making \$100 per week has insurable earnings of \$90.00 per week. If she takes maternity leave she will receive social security payments of 60 percent of her insurable earnings; or in this case \$54.00 per week, for every week off the job, up to a maximum of three months, beginning six weeks before, and continuing six weeks after confinement. In addition, a maternity grant of \$50.00 is payable to an insured woman or to an insured man if his wife is not insured.

Benefits are now being paid up to 78 days after the first three days of inability to work because of illness. The percentage of insurable earnings is the same as maternity: 60 percent. In addition, the insured person is covered against the following contingencies: sickness, maternity, employment injury (including medical care as well as cash benefits), invalidity through

any cause, retirement, and death of the breadwinner.

Benefits are paid out of the Social Security Fund. Employers contribute 6 percent of the employee's insurable earnings to the Fund, while employees contribute 1 percent of their insurable earnings. Paying only 1 percent of his insurable earnings, the employee on the average enjoys benefits amounting to 60 percent of these earnings. Employment injury benefits range from 60 percent of insurable earnings for temporary incapacity up to 75 percent for total disablement requiring constant attendance. Figures for the first quarter of 1982 show that the Belize Social Security Board has paid out 475 claims for injury benefits amounting to \$160,000. There is no qualifying period for this kind of benefit and no set amount of contributions have to be paid before qualifying.

As of March 1982, 9 months since the program's formation, some 30,000 employees had been registered along with 3,000 employers. In March 1982, the Social Security Fund totalled \$3.4 million after deductions for administrative expenses. The money is held in term deposits in the various banks operating in Belize.

Under the Social Security Ordinance, part of the Social Security Fund can be invested in viable projects such as housing, but to date no such projects have been designated.

HOUSING

The Central Housing and planning Department of the Ministry of Health, Housing and Cooperatives is the government agency for housing and planning. Some of its main functions are: the preparation of town and regional development schemes; the undertaking of slum clearance schemes; and providing the necessary secretariat for the Central Housing and Planning Authority. Within the Ministry, the Housing and Planning Officer is Mr. John Hertular, who is located in Belize City.

The most recent housing survey was carried out by the Housing and Planning Department of Government in 1970. The objective was to assess housing and living conditions based on a combination of housing quality factors (type and size of construction), dwelling factors (water supply, toilet facilities, functional design, maintenance, and other facilities), and environmental factors (land crowding, hazards, community facilities, and nuisances). In 1982, twelve years later, there had been no significant change in the housing pattern which will be described below.

The 1970 survey covered 23,065 households. Of these, 79 percent were constructed of wood, 3 percent concrete and 18 percent of busk material (wattle/adobe with thatch roofing). Since wood is one of the country's few natural resources, wood remains the major building material in Belize. Cement and steel have to be imported and therefore are expensive. However, wood is scarce and expensive as well due to the inactivity of the small sawmill operators who traditionally supply the local market.

The highest concentration of households is in the Belize District (43 percent in Belize City and 9 percent in Belize rural) which is the most populated district. Of the 23,065 households surveyed, 57 percent were owned by the occupying families while 26 percent were rented, and the remainder occupied rent-free. Many of the houses were old. Because of the climatic conditions to which houses are exposed and their construction materials, a large percentage of the houses in the country are deteriorated.

Population overcrowding prevails throughout the country, and is compounded by the trend of people moving from rural to urban areas. While the 1970 survey showed an average household size of 6.0, 78 percent of the households had only three rooms or less, 17 percent had between four and five rooms, and

only 5 percent had more than five rooms. In a recent housing project constructed for low income groups in Belize City, houses were designed for seven persons; however, it was later discovered that some houses had as many as 21 persons living in them. This overcrowding leads to house deterioration and increases the incidence of health problems. It also creates heavy demands on water supplies and the sewage disposal systems.

The largest slum area in Belize is found in Belize City, which has the largest proportion of the total population. Unsatisfactory housing is particularly evident in Belize City and has always been considered a grave problem. The problem was aggravated in 1961 by Hurricane Hattie. The trend of population movement from rural areas to the urban area of Belize City has also compounded the housing problem. Lack of safe water supplies, the use of "privies", and a non-existent sewage disposal system make the housing environment in the slum area of Belize City a formidable public health problem.

The government has three institutions in Belize to provide housing and housing finance. These are (1) the Development Finance Corporation to cater to middle-income housing, (2) the Reconstruction and Development Corporation for low-income housing and (3) the Housing and Planning Department for low-cost housing for rent and for hire purchase (i.e., public housing). The first has no funds for the issuing of new loans because of an earlier disagreement with the Caribbean Development Bank, its main source of funds for housing. The second traditionally borrowed from the commercial banks and issued small loans at 11½% interest. The present high commercial interest rates have made it impossible to tap this source and still cater to its traditional client population, i.e., families with household income of BZ \$1,000 to \$7,500 per annum. The Housing and Planning Department is financed directly by government,

but its budget is very limited. It provides only about sixty houses a year, while the estimated annual requirements are 600 to 800. Recently, the US Agency for International Development (AID) agreed to fund a home improvement housing project for Belize City with a \$2.0 million housing investment guaranty; however, this plan has yet to materialize.

In Belmopan, the new capital and administrative center of the country, some 750 concrete block dwelling houses have been built since 1977. Also, two housing projects supervised by the Reconstruction and Development Corporation and financed from Caribbean Development Bank loans were started in 1976. One in Belmopan for 106 low-cost houses is in the process of leasing to applicants and the other of 96 low-cost houses was completed in 1978.

Also in Belmopan, the Development Finance Corporation is financing 86 two and three-bedroom middle-income houses which were completed in 1978.

In 1981, the per capita income in Belize was \$1,000 with an average inflation rate of 12 percent. The factors of low income and unavailable financing make it very difficult to obtain housing. There are no building societies or other finance institutions, and the government is the main source to which people can look for financial assistance. In an effort to increase home ownership, particularly among families in the low income group, the Housing and Planning Department continues to provide necessary technical assistance in this field. Since 1973, with financial assistance from the government, a program has been carried out over the past seven years for the erection of low cost houses in Belize City as a temporary measure to assist in meeting the needs of people removed from slum areas.

The St. Martin De Parres Area in Belize City is an example of the government's effort to provide adequate low-income housing and a healthier urban

environment. The project began in 1982 when a study conducted by the Central Planning Unit and UNICEF indicated that priority should be given to the development of urban areas since children in these areas were found to be more deprived than those in rural areas. The project was spearheaded by the Ministry of Labor, Social Services and Community Development and voluntary agencies, including the Christian Social Council with support from UNICEF. Low-income housing was coupled with programs of health, education, and recreation. The project has been deemed successful and further community development projects of this nature will follow.

CHAPTER SIX

PUBLIC EDUCATION AND RECREATION

Educational function in Belize are organized and administered under the Ministry entitled "Attorney General and Minister of Education and Sports and Ambassador to CARICOM". The current minister is the Honorable Said Musa while the Permanent Secretary and Chief Education Officer is Inez Sanchez, both located at Belmopan. Education is compulsory for children between six and fourteen years of age.

The National Council for Education is a consultative body advising the Minister on questions of educational policy and consists of the Chief Education Officer and 16 members appointed by the Minister. One of the members is to be a Member of the National Assembly nominated by both Houses of Assembly, nine to be nominated by specified interests,¹ three to be the principal teachers of an Anglican, a Roman Catholic and a Methodist secondary school, and one each to represent adult and further education. Appointments to be normally of a two year duration and are renewable.

The Education Ordinance, 1967, also provides for the establishment of four Standing Committees.

The Primary Education Committee consists of eight members appointed by the Council from among its members and, as co-opted members, the principal of the Belize Teachers' College and a primary school teacher.

¹. Chamber of Commerce, the Minister responsible for agriculture, the Catholic Education Association, the Union of Teachers, the Roman Catholic, Anglican and Methodist churches, churches of other denominations, and the trade unions.

The Secondary and Further Education Committee consists of eight members appointed by the Council from among its members, and, as co-opted members, the principal of the Belize Teachers' College and the principal of the Belize Technical College, if not a member of the Council.

The Committee on Technical and Agricultural Education consists of seven members appointed by the Council from among its members, and, as the co-opted members, the Permanent Secretary, Ministry of Labour, the Chief Agricultural Officer, the principal of the Belize Technical College (if not a member of the Council) and the principal of Lynam Agricultural College. This committee can appoint from among its members a sub-committee on the training of craftsmen.

The Teacher Training Committee consists of not more than four members appointed by the Council from among its members and, as co-opted members, the principal of the Belize Teachers' College and three members of the Board of Governors of the Belize Teachers' College nominated by the Board.

In 1981 there were 220 primary and secondary schools and five post-secondary institutions. Total enrollment in 1981 was 41,936.

Educational standards in Belize are relatively high; 85-90% of all children complete 8 years of primary education, which operates mainly through the Church-State partnership. Under this system there are several types of schools: those completely administered and financed by the Government and those where the church and State share expenses. In 1981 there was an enrollment of 35,000 students in 189 church-state schools. An additional

1,000 children were enrolled in 15 private primary schools. The above figures are increasing at an annual rate of some 2.5%.

At present secondary education is largely located in Belize City, though plans are under way to build more secondary schools in rural areas. In 1981 total secondary enrollment was 6,600 of whom 4,600 were in Belize City.

Beyond secondary level, there is only the Belize College of Arts, Science and Technology (BELCAST) with 58 students and the Belize Teachers' College with 170 students. The former is a relatively new institution and at present offers a limited number of courses. Educational policies are generally sound but it will take time to adopt the academically oriented colonial system to a curriculum more suited to Belize's needs.

The Belize Technical College holds day and evening classes. It offers part-time day trade training for young people released by employers of industry and government as well as Evening Classes in English, Commercial Science and Home Economics. Belize Vocational Training Centre was officially opened in Belize City in November 1965.

The Belize Junior Secondary School No. 1 was opened in January, 1969. It is a Government institution which provides a three year course of secondary education for children between the ages of 12 and 15. At the end of their three year course, students who have the aptitude and capacity may be given an additional two years' tuition at the Belize Technical College or at an academic secondary school.

Three denominational secondary schools provide an additional two years of training to prepare students for the G.E.C. Advanced Level examinations.

The Belize Teachers' College offers a two year course. In addition, a third year of internship is served in schools under the supervision of the college staff. Tuition is free. Successful candidates are bonded to

serve for 5 years after the completion of their course in a school approved by the Chief Education Officer. An important scheme of in-service training is also in operation. Twice yearly two groups, each of 40 teachers, are selected for admission to a 20-week course at the Intermediate Training Centre. This course prepares the teachers for their next professional examination and serves the special purpose of settling in many teachers shortly after they have been recruited to the profession.

In August 1982, the Minister of Education, Mr. Said Musa, outlined a number of concerns and educational objectives. There still remains a high drop-out rate particularly in rural areas where children stay home to help their families in the field. There is a growing problem of truancy in Belize City. In addition, there is a need for major renovation of existing school buildings and additional new school buildings for the entire country, particularly in the rural areas.

Belize is also concerned with the issue of functional literacy. While Belize is providing eight to nine years of basic education for children between the ages of five and fourteen years, almost half of the primary school students were unable to attain secondary education due to their inability to qualify on the basis of the standard they had reached at the primary school level. In the past, government scholarships seemed to become a privilege of the urban students from certain districts who may have been exposed to better teachers and facilities, but this trend is changing.

Efforts are also being made to upgrade teacher training. In 1982, only 36 percent of teachers in the primary schools were trained, that is, having attended the Belize Teachers' College or some equivalent institution. The remaining teachers are certified through a system of annual examinations which are administered and evaluated by the Ministry of Education. There

are a number of uncertified and unqualified teachers.

In addition to efforts to improve the qualifications of teachers, the Ministry of Education recognizes the need to orient the educational system to agriculture, the vocational trades, and to science and technology. Efforts are also being made to expand an educational television unit. Television is already having a strong educational impact on Belize.

In improving the state of education, finance is of critical and primary importance. The Ministry of Education is presently working with UNESCO, as well as the World Bank, the Caribbean Development Bank, and the various world multilateral agencies as sources of educational funding.

1982 EDUCATIONAL STATISTICS

Number of Schools

Primary	198
Secondary	22
Other (Teacher's College, Agricultural School, Nurse's School etc.)	5

Enrollment

Primary	35113
Secondary	6298
Other	525

Number of Full-Time Teachers

Primary	1463
Secondary	345
Other	32

Teachers' Qualifications (Secondary)

University Degree	82
Degree with Teacher's Diploma/Certificate	60
Training College Diploma/ Certificate	87
Other Non-graduates	148

The Sports Council is also looking at other areas to apply its energies. One of the objectives, as laid down in the Sports Ordinance, is "to carry out any sporting or sports related activity for the promotion of youth development." Dickie Bradley says, and National Sports Director Clinton "Pulu" Lightburn, agrees, that the Sports Council can help at the local level with problems in the community that have their roots in misdirected energies of youth.

Bradley's plan is to put forward a project to involve in sports some of the less fortunate young people such as school dropouts or the unemployed. The Sports Council Chairman believes in the old adage, "An idle mind is the devil's workshop." His idea is to use sports as a tool to occupy and benefit youths who would otherwise remain idle and become possible candidates for delinquency courts.

CHAPTER SEVEN

LABOR

RIGHT TO WORK

Section 15, The Constitution of Belize, states that no person shall be denied the opportunity to gain his living by work which he freely chooses or accepts, whether by pursuing a profession or occupation or by engaging in a trade or business, or otherwise.

LABOR FORCE

The labor force currently approximates 40,000, consisting mainly of unskilled and semi-skilled labor. The size of the labor force is distributed as follows:

40.5% in Agriculture, Forestry, and Fishing

37.5% in Services

22.0% in Manufacturing, Construction, and Mining

Belize continues to suffer from a shortage of skilled professional and technical workers. Due to the lack of economic opportunities and the difference between the wage scales in Belize and the United States, a large segment of the skilled labor force has emigrated. Upon independence, Belize became eligible for a larger immigrant quota to the United States, sparking concern that emigration might increase still further. Experience to date, however, has been that the enlarged quota has been filled mainly by persons already residing in the United States and who are seeking to legalize their status. Nevertheless, emigration remains a serious problem and has produced a population base skewed toward the very young and very old. To alleviate the labor force problem, the Government has adopted fairly liberal work permit regulations to allow entry of skilled and unskilled workers.

UNEMPLOYMENT AND UNDEREMPLOYMENT

Inquiries about the level of employment in official circles elicit the response that of the country's 40,000 worker force, less than 4% is unemployed. However, here a fine distinction has to be made between unemployment and underemployment. Statistically a person having any annual income would be classified as employed, but this income may have arisen through casual and sporadic employment, especially in urban areas. Similarly, all farmers who live on the land may be classified as self-employed, but in fact, they merely subsist and in many cases have to do odd jobs between crops or take on seasonal employment to survive.

The per capita income in Belize was \$1,200 US in 1981, compared to \$501 US in 1976 (current prices). However, there is considerable income disparity. The Government estimates that 70% of the households in Belize are low income, with an annual income below BZE\$2,500 (US \$1,250), and that the next grouping, lower-middle income, comprises 15% more of the households. So the largest number of families are placed in the low-income brackets even by Government. Over-crowded housing conditions, environmental sanitation, feeding patterns, health status, and other indicators all reflect in general more poverty than would be expected of the per capita income level. So the claim of less than 4% unemployment does not reflect the real situation. Some sources estimate unemployment to be as high as 15%.

Of the total, labor force, 70.5% are males, and 29.5% are females. No figures are available for unemployment among men and women separately. The largest number of unemployed persons seem to be in the urban areas. There are cases where concurrent with high unemployment in Belize City and other towns, migrant workers from neighboring countries have had to be employed for the cane or citrus harvest. This reflects on the lack of mobility of the

labor force already referred to. Some other factors worthy of consideration are:

- there are equal opportunities in Belize for boys and girls to pursue primary education, thus enhancing the possibilities for women to be engaged in gainful employment. Women are, in fact, being increasingly employed.

- more women from low and lower-middle income groups are being employed or looking for jobs in order to supplement the family income.

- the type of secondary education (academic-oriented) offered creates expectations for more white-collar jobs than the job market can provide.

The Government is aware of this, and the development of appropriate curricula is one of the major drives in this area.

- many young people with a Primary School Certificate or High School Diploma are looking for jobs, and after fruitless searches the only prospects left to them are emigration, frustration, and in some cases, delinquency and vandalism.

In Belize, income opportunities, limited as they are, are available to everybody regardless of ethnic background, though some feel that to a degree, skin color is a determinant factor. Jobs are also open to women depending on education, skills, and qualifications. Female labor is more frequent among Creoles and Caribs, although it is also evident in all other ethnic groups. Women from single parent and low-income families are more prone to work. Female labor is also common in rural areas where both wife and husband work in agricultural activities. Unemployment is present in all ethnic groups, although more frequent among Creole and Carib families (largest combined ethnic group). There seems to be a general feeling within these ethnic groups that they have to take jobs below their qualifi-

cations. This is due in part to their educational background and hence, more proneness towards white-collar jobs.

On the whole, regardless of what the available statistics show, unemployment and underemployment are high. This conclusion is reinforced by observation of many social indicators in the communities.

MINIMUM WAGES

At the present there is no general fixed wage except for shop assistants and government manual workers. The following are average wage rates for selected job categories:

<u>SKILL TYPE</u>	<u>HOURLY WAGE RATE (\$US)</u>
Mechanic	\$1.00 to \$1.50
Electrician	\$3.00 to \$4.00
Plumber	\$3.00 to \$4.00
Truck Driver	\$0.82 to \$1.00
Other Equipment Operator	\$1.20 to \$1.50
Ordinary Laborer	\$0.60 to \$0.65
Supervisor fo Craftsmen	\$2.50 to \$5.00
Supervisor of Ordinary Labor	\$2.12
Accountant/Office Manager	\$11.50
Secretary	\$1.92 to \$2.57
Clerk	\$1.77 to \$2.50

SOCIAL SECURITY

The Belize Social Security System came into being in 1979. Under the system, employers with more than one employee are required to apply for registration on Form R.1. The application for registration must be made within fourteen days of the effective date, and subsequently within seven days. If a company owns different establishments, an application

is required for each establishment.

In general, every employment under a contract of service or apprenticeship, written or oral, is insurable. This includes employment with the Government and all statutory authorities, employment in a civilian capacity under the Crown where the contract of service is entered into in Belize, and employment on board vessels and aircraft of which the owner or managing owner or manager resides or has his principal place of business in Belize.

There are a few exceptions, such as-

- (a) casual employment not for the purpose of the employer's trade, business or profession;
- (b) any employment for less than eight hours in a week;
- (c) employment of a domestic worker for less than twenty-four hours in a week;
- (d) employment of a person in the naval, military or air services of the Crown; and
- (e) employment of a woman by her husband or vice-versa.

Every person over 14 years and under 65 employed in insurable employment is liable to be registered. Application for registration, Social Security Form P.4, is made through the employer, who forwards it to the manager of the Social Security Board in Belmopan.

A contribution is payable for any week or part of a week in which the employee works. The rate of contribution that must be paid is related to the insurable earnings, which in turn is determined by the employee's actual earnings. The earnings are broken-down into four groups and contributions will be payable by both employer and employee on the basis of the wage group into which the employee falls. The table below shows the classification and rates of contributions payable in respect to each wage group.

WEEKLY CONTRIBUTION PAYABLE BY EMPLOYED PERSON AND EMPLOYER

(See next page)

WEEKLY CONTRIBUTION PAYABLE BY EMPLOYED PERSON AND EMPLOYER

Equivalent Monthly Earnings Column (1)	Weekly Earnings Column (2)	Weekly Insurable Earnings Column (3)	Amount of Weekly Contribution		
			Employed Person Column (4)	Employer Column (5)	Total Column (6)
	\$	\$	\$ ¢	\$ ¢	\$ ¢
Under \$174.00	\$40	25	0.12	1.63	1.75
Between \$174.00-\$303.99	\$40-\$69.99	55	0.55	3.30	3.85
Between \$304.00-\$476.99	\$70-\$109.99	90	0.90	5.40	6.30
\$477 and Over	\$110 and Over	130	1.30	7.80	9.10
Employment Injury		-	-	1.50	1.50

ORGANIZED LABOR

Section 190 of the Labor Ordinance authorizes the Minister of Labor to establish a Labor Code of Conduct. The Code has as its general objectives:

- a system of free collective bargaining between workers and employers;
- orderly procedures for the peaceful and expeditious settlement of disputes by negotiation, conciliation and arbitration; and
- good personnel management techniques designed to secure effective cooperation between employers and workers and to protect both against unfair labor practices.

The Labor Code of Conduct was compiled and presented by the Ministry of Labor and the Labor Advisory Board for the workers of Belize. The Code outlines the responsibilities of the employer, worker, and trade union in labor management relations. Also, collective bargaining, grievance, and disciplinary procedures are contained therein.

At the present time, organized labor is not very effective. Only about 8 percent of the work force of Belize are members of trade unions. A list established trade unions is shown on the next page.

Public Service Union

President: William Tillett, 16-3rd King's Park, Belize City
Telephone: 4-4003
Members: 1,200 government workers
Member: National Trade Union Congress of Belize

Democratic Independent Union

President: Cyril G. Davis, 16 Iguana Street, Belize City,
Telephone: 3016
Members: 1,500 public works, water authority, and agricultural
employees
Member: National Trade Union Congress of Belize

Belize National Teachers Union (Telephone: 2857, Belize City)

President: Carlos Castillo
Members: 750 teachers
Member: National Trade Union Congress of Belize

Belize Taxi Drivers Union

President: Orvin Pitts
Members: 200 taxi drivers
Member: National Trade Union Congress of Belize

Christian Workers Union

President: Desmond Vaughn
Members: 1,000 dock workers (estimated)

Belize Energy Workers Union

President: Winston Jones
Members: Unknown number of electrical workers

Belize Workers Union

President: Antonio Sosa (Corozal Branch), 5th Avenue, Corozal
Telephone: 2411
President: Landelino Chavarria (Orange Walk Branch)
Members: Unknown number of sugar workers

United General Workers Union

Acting President: Mr. Antonio Gonzalez
(Estimated to represent 500 employees in the government and citrus
industry, however, there has been a destabilization of members
because of the officers' contact with Cuba and U.S.S.R.)

National Trade Union Congress of Belize

President: Winston Jones, Belize Energy Workers Union
1st V-P: William Tillett, Public Service Union,
2nd V-P: Ms. Beatrice Robatean
Gen. Sec: Mr. George Frazer
Ast. Sec: Rodrick Parham, Belize National Teachers Union
Treasurer: Shirley Pinks, Public Service Union

CHAPTER EIGHT

ECONOMICS, COMMERCE AND INDUSTRY

GENERAL CONDITIONS

During the latter part of the 1970's Belize's economy performed strongly with an average annual growth rate of 5%. However, since the turn of the decade, the economy has been on the decline. Austerity was the watchword for 1981 and 1982, as the Belizean economy weathered the effects of a worldwide recession and a decline in sugar export prices. With an economy substantially dependent upon imports, Belize's cushion against such economic shocks was relatively thin. By maintaining strict control over both current and capital spending, the Government was able to keep its foreign debt and debt service low, and therefore, readily manageable. The tight fiscal and monetary policies of the Government, however, had a restraining effect on economic growth. Recent cuts in capital spending have shown the Government's determination to keep spending in line with revenue and to avoid any operating deficits.

As can be seen in Table I, Gross Domestic Product (GDP) actually declined approximately 6 per cent from 1981 to 1982. Economic growth during 1983 remains linked to an upswing in the economics of Belize's major trading partners.

Inflation slowed in 1981 to a rate of around 10 percent, a substantial improvement over the 15 percent rise of 1980. Two factors lay behind this good showing. The sound monetary policy pursued by the Monetary Authority was major influence. The basic money supply has increased by an average of only 4 percent in each of the last three years. With an import-dependent economy, Belize also benefitted from the reduction in inflation levels in the United States and the United Kingdom, the largest exporters of goods to Belize.

Many factors contributed to the slow-down of economic growth during the

TABLE I
ECONOMIC TRENDS

Belize: Key Economic Indicators
(Money values in millions of U.S. Dollars except where noted)

	1979	1980	1981	1982
<u>Income and Production</u>				
GDP at Factor Cost	112.2	147.6	156.5	148.3
Per Capita (dollar)	884.9	1015.1	1055.3	975.9
GDP at Market Price	138.0	165.8	177.5	168.3
Per Capita (dollar)	999.3	1140.3	1196.9	1107.2
Population (actual figure)	138,100	145,353	148,300	152,000
<u>Monetary Indicators</u>				
M1 Money Supply	19.2	21.4	20.9	21.0
Public Debt	30.3	38.9	47.3	58.0
Debt Service	2.0	1.9	2.0	2.0
Interest Rates (Prime)	9.5%	12.0%	18.0%	18.0%
International Reserves (Gov.)	9.7	11.9	10.1	9.7
<u>Balance of Payments and Trade</u>				
Total Exports (f.o.b.)	87.0	106.1	118.9	93.7
U.S. Share	47.3%	58.4%	60.8%	46.8%
Re-exports	30.2	28.7	44.2	33.9
Total Imports (c.i.f.)	133.2	149.5	161.9	131.5
U.S. Share	35.6%	34.8%	35.4%	33.0%
Balance of Trade	-46.2	-43.4	43.0	-37.8
<u>Exports: Major Items</u>				
Sugar and Molasses	33.4	49.9	43.4	33.7
Clothing (Offshore Assembly)	10.8	14.4	11.6	6.4
Citrus	4.7	6.8	7.1	7.4
Fish and Lobster	4.4	4.1	7.2	6.3
Bananas	3.4	3.5	2.2	2.1
Wood and Wood Products	1.6	1.1	2.3	1.8
<u>Imports: Major Items</u>				
Consumer Goods & Bldg Materials	39.3	44.6	48.8	35.8
Food and Beverages	33.1	36.1	43.5	39.7
Vehicles and Machinery	29.8	28.9	28.8	20.1
Minerals, Fuels, Lubricants	20.7	27.3	25.7	25.0
Chemicals & Pharmaceuticals	9.3	9.7	11.4	8.3

improved distribution and marketing facilities. Indicative of the commitment to the agriculture sector, most of the public sector investment projects that are planned for the 1980-83 period will directly affect the agriculture sector.

With an abundant supply of fertile land, Belize's full potential in its agricultural sector is far from realized. Of 5.7 million acres of land, 2.2 million acres are considered suitable for agricultural development, of which 50 percent is best suited for arable farming and 50 percent is suitable for grazing. It has been estimated that only some 15 percent of the land suitable for agriculture is being utilized for that purpose. The agriculture sector is characterized by large plantations producing sugar, citrus crops, and bananas mainly for the export market, while the output of the small-scale units is earmarked essentially for domestic food consumption.

SECTORIAL DEVELOPMENT

Agriculture - This sector contributed over 25% of the GNP and represented about 60% of total exports. The most important and significant exports were sugar, citrus, bananas, and marine products (lobster, conch, shrimp, fish). Within the last two to three decades, these have replaced lumber and other wood products as the country's most important exports.

The sugar industry is on the verge of major changes, as the British firm which refines and markets Belize's sugar has proposed either to sell a controlling interest in its operations to the Government of Belize and local can farmers, or to close one of its two sugar refineries. Negotiations between the various parties involved are continuing and should be concluded by the end of the year.

The citrus industry offers some of the best prospects for increased production in the agricultural sector over the medium term. Citrus exports increased for the third consecutive year in 1982, in spite of low world

prices for grapefruit.

Manufacturing - This sector accounts for about 15% of the GNP. Apart from the processing of agricultural produce (sugar, citrus, marine products), the garment industry, which is export oriented, is the most important. During 1981 such exports fell to Bze\$22.1 million from Bze\$28.4 million in 1980.

At this present time industries which are serving the local market include two new breweries; soft-drink bottling; cigarette manufacture, an agricultural fertilizer plant; a feed mill; a flour mill; industrial gases; furniture; footwear; tire recapping; batteries; tile and the fabrication of iron bars. In view of the heavy imports of food products, the Government is pursuing a policy of encouraging import substitute industries in the area where this is clearly in the best economic interests of the country.

Tourism - Belize has an enormous potential for tourist development. The country contains over 100 Mayan archaeological sites, but to date, only a few have been developed. Off the coast of Belize there are some 175 islands or cayes, many of which possess attractive white sand beaches. The longest coral reef in the Americas stretches the entire length of the coastline, some 175 miles. The forested mountains of inland Belize contain scenic waterfalls and rivers, as well as a variety of tropical flora and fauna. However, development of the tourism industry has proceeded slowly. Belize still has no luxury accommodations and few that could even be called first class. The Government has not actively promoted tourism or assisted the tourism industry, preferring to use its limited resources to develop industries that it considers should be given higher priority.

Construction and Housing - The need in Belize is for low-cost housing and notwithstanding the efforts by Government in carrying out new housing

developments, the demand exceeds supply. The most difficult problem affecting the program is financing and the Government is constantly seeking to double its efforts in this area in co-operation with the private sector, external and international agencies.

An agreement has been reached with the World Bank for loan of US \$5.3 million (Bze \$10.6 million) for the reconstruction and maintenance of roughly twenty eight miles of roads and for the improvement of drainage along sixty-five miles of road from Melinda to the San Antonio-Punta Corda road junction of the Southern Highway. The latter is the first stage for a blueprint to later upgrade this Southern route.

This loan from the World Bank is the bank's first loan to Belize as an independent country. The loan is to be repaid at an interest rate of 11.4 percent over a period of seventeen years. There is a four year grace period. The first installment by the Belize Government for this World Bank loan will be made in October of 1987. The final repayment is to be made in April, 2000.

Fishing - The Belizean fishing industry is based upon exploitation of shallow water areas inside the barrier reef. Increased production form these areas is not likely and the Government has focused its attention of the development of aquaculture and deep-water fishing to complement the present fishing activities. The environmental conditions in Belize appear favorable for both aquaculture and mariculture, and private industry projects are underway in both of these areas, with the enthusiastic endorsement of the Government.

CHAPTER NINE

AGRICULTURE AND FOOD

HISTORICAL PERSPECTIVE

The country's major development strategy is to develop, strengthen, and expand its agricultural base so that this may become the mainstay of the economy. To better understand and appreciate the problems and difficulties inherent to implementing such a strategy, it is necessary to become familiar with the history and development of the agricultural sector in Belize.

Historically the country of Belize lacks a tradition of agriculture. The Settlement of Belize, on the Central American mainland, was first established by shipwrecked British sailors and their slaves, in an area than claimed by Spain. Their main economic activity became the cutting of logwood and later mahogany logs for the European market. There are many reasons, therefore, why the settlers did not become involved in agriculture and, in fact, actively discouraged its practice. First of all, ships coming in to pick up their cargo of logs brought in all the foodstuffs and other supplies required by the small settlement. Then, because the labour force was small, it was desireous to direct their entire effort into the major economic activity, namely the cutting of logs. Finally, the settlers were constantly poised for temporary evacuation whenever a raiding force of Spaniards came down from Yucatan in the North. Even later, when an understanding was reached with Spain and the settlers were legitimately allowed to cut timber, a term of the agreement specified that no agriculture should be practiced. So whatever agriculture was done during this time had to be a clandestine operation and was frowned upon even by the local inhabitants. It was regarded as a social stigma to be a farmer in those days. This, however, was not the

full extent of the harm done. The practices then current, developed in the inhabitants an appetite and taste for things imported, especially foodstuffs. From this evolved the attitude that to be good it had to be imported, and anything produced locally is suspect. Unfortunately many of these traits have persisted even to the present day. The colonial era that followed did very little to dispell this pattern, encouraging only the production of primary goods (timber, sugar) to meet the requirements of the industries of the mother country and encouraging dependency on her for everything else.

In those early days the only people in the area involved in any type of farming were the indigenous Ameri-Indians (Maya Ketchi, Maya Mopan, Maya Yucatec), and these resided in the hinterlands, with minimal contact with the settlers who lived in the coastal regions. Even then they were practicing a traditional form of primitive slash and burn agriculture, growing corn, beans, and a few root and tree crops, and rearing pigs for their own consumption. However, they were at least self-sufficient in meeting their own basic food requirements. Today they make up only 5-7% of the country's population.

In spite of such a gloomy background and tradition in agriculture, the concensus today is that any meaningful development of Belize must take place in the agricultural sector. On close examination, this is far from the folly it may appear to be at first glance. The country's two major resources are its 8,866 sq. miles of land, its 150,000 people. This gives it one of the highest land/population ratios in Latin America, if not the world. Of the landed areas, about 33% is suitable for agriculture. This area has a wide variety of excellent soils and suitable climate that can support the production of a wide range of agricultural products. Forty-six percent more can be used for forestry and the production of other tree crops. Yet with all this endowment, Belize is not self-sufficient even in its basic food requirements. It is still

a heavy net importer of food stuffs, while it has the potential not only to feed itself but to be the bread basket of the densely populated Caribbean.

Since the turn of the century, and more specifically since the 1950's deliberate steps have been taken to change this state of affairs. The task has been monumental and continues to be so. People, the majority woodcutters, had to be persuaded to take up farming as a means of livelihood, an endeavor they not only know little about but had been brought up to actively despise. It called for infrastructure development to make farm lands available; development of agricultural research and extension services; and improvement and expansion of health and other social services to reach and serve rural communities. All this had to be done by a country low on manpower, especially, qualified personnel. Still a certain measure of success has been achieved. Today of the estimated 31,500 employed labour force, 40% are in agriculture. However, "The Green Revolution", as it is called locally, is far from complete. Although, some dignity has been given to the status of farmer and a solid cadre of small farmers has been established. Belize is still not self-sufficient in many of its basic food requirements, though the gap has been considerably lessened. Being relatively new servants of that exacting taskmaster, the land, the farmers leave much to be desired in efficiency and productivity. This is also reflected in their standard of living, which is characterized by poor housing and poor diet.

The picture outlined above is further complicated by difficulties within the agencies responsible for implementing some of the changes. The Government's Ministry of Works, in addition to its normal function of maintenance of buildings and structures, is responsible for implementing the expanded road infrastructure programs. However, it is handicapped by a shortage of technical

and professional personnel, in spite of efforts to train staff both on the job and abroad. The training of engineers and architects is at best a long term proposition, and life and work must go on while they are being trained. It is not surprising, therefore, that the opening up of new agricultural land and the construction of farm roads, rural health centers, schools, and other infrastructure is far from meeting the demand. This naturally has an adverse effect on the farming communities, the general farming effort, and the ability of Belizeans to better feed themselves.

Another factor contributing to delays in development in the agricultural sector is the traditional land distribution pattern. Until fairly recent times about 50% of the country's landed area was owned by less than two dozen large estate owners, the majority of whom were absentee landlords. These people had acquired the land as free timber concession grants from the British Crown and/or at nominal costs. In most cases their lands were the most accessible and potentially best agricultural lands and were completely undeveloped. In many cases they neglected to pay even the token land tax on their possessions. The tax was regarded as token because its basis was vegetation cover (high forest, low forest, savannah, etc.) and had no relation to the location and/or productivity of the land. As a result many small farmers began their farming activity as squatters or tenants on private lands. Usually, even for tenants, one of the characteristics of their tenancy is that only annual crops are grown. No permanent crops are planted nor any permanent structures erected. On Government land the situation was not much better. A farmer would be given land for development under a location ticket. This simply stated the general area and acreage of land that may be developed. Clear title to the land could not be obtained until after at least 50% development was achieved and a detailed survey fixing the boundaries was taken and boundaries recorded on a plan.

The bottleneck has been that the demand for surveys and pressure for land titles far exceed the services available. The end result has been a considerable delay in the issuing of titles, and hence land holders have not had collateral to use in raising funds for the development of their plots. This state of affairs is not conducive to expansion and development in the agricultural sector. At present, the Government of Belize is in the process of re-organizing and strengthening its Lands and Surveys Department in order 1) to carry out more surveys and prepare the necessary plans so that the farmers can get title to their lands; 2) to streamline the process of compulsory land acquisition from absentee landlords and land tax defaultors for distribution to and re-settlement of farmers; and 3) to overhaul and reorganize its land valuation system.

Several other constraints to further development of this sector need to be overcome. The road transportation system must be improved, both to open up previously uncleared lands for development and to facilitate transportation from farms already in operation. A shortage of both skilled and unskilled labor in rural areas is a problem. By far the largest problem confronting this area is the location of overseas markets, because the domestic market will not absorb any significant increase in production.

B. GENERAL

The principal crop in the agriculture sector is sugar of which 106,000 tons were produced in 1982, an increase of 9,000 tons from 1981. Sugar production is handled by two factories operated by Belize Sugar Industries, Ltd., a subsidiary of Tate and Lyle, Ltd. These are also supplied with cane by over 4,000 cane farmers.

Citrus products are next in importance and have brought higher prices within the last five years. In Belize, the production and acreage have increased

and cultivation techniques have improved during this period. About 85 percent of the crop is canned or made into juice concentrate. Citrus production is handled primarily by two large companies, the Citrus Company of Belize and Salada Belize, Ltc. Only about 20 percent is produced on small and medium size farms.

Other crops of importance in this sector are bananas, rice, kidney beans, corn and honey. Once a mainstay of the sector, banana production declined in the early sixties. However, there are current plans to increase the acreage under cultivation.

Forestry is one of the oldest economic activities in Belize and forestry exports are a significant earner of foreign exchange. Mahogany, pine and cedar account for a major part of the lumber production with rosewood and other hardwoods making up the remainder.

Aquaculture and mariculture is well suited to the topography and climate. In 1979, the country earned \$3.9 million from fish exports of which the most popular were lobster tails and shrimp. Exporting is handled by six cooperatives and the major portion is sent to the United States. There are two plants in Belize City which pack fish and conch meat for export and there are plans for the construction of a packaging plant at Big Creek by the A&S Corporation, a subsidiary of Alberti Foods Inc. (USA). Licenses are required for the export of freshwater fish and a tax is levied on fish exports. Exploitation of shallow water fishing areas has been saturated. Further expansion of seafood exports will have to come from either aquaculture or the development of deep-sea fishing operations.

Price controls exist on meat, fish, agricultural commodities, sugar, beer, corn, rice, beans, toilet paper, bread, milk, gas and cigarettes.

Moreover, only a small percentage of the households have refrigerators.

The potential for food processing also is limited by a number of factors. The major crop, sugar is only suitable for very limited processing. Citrus is already being processed into juices, concentrates, and segments, and there is insufficient processing capacity. Bananas require no processing. Output of other crops is at present too small to permit the establishment of a processing operation.

Prospects for investment in the timber industry appear to be good. The potential supply of timber could support large-scale sawing and possibly secondary processing; timber resources are probably sufficient to support a pulp and paper mill. There is one small kiln, which is owned by the Government and used periodically--mainly for experimental purposes. A large kiln is being restored, after being idle for 20 years, by an American investor who plans to go into the furniture-making business.

CROPS

1. SUGAR

Sugar cane is grown in the Corozal and Orange Walk districts of northern Belize. It is usually monoculture but can be rotated with corn and beans; with rice where there is sufficient drainage, or with grass. A small number of farms are large enough to cope with harvesting, but considerable difficulty is experienced by the remaining farms due to labor force shortages. This is due to some extent to a great many of the cutters being small farmers with quotas ranging from 5 to 200 tons who look after their own interests before making themselves available to the larger farmers; and the "milpa" system under which hundreds of cane cutters in the Corozal district are also "Milperos" with their own small plot of land, miles away from their place of work. Between the months of March to May, these "Milperos" leave their employment as cane cutters at

irregular intervals and go off to their "milpas" in order to prepare their fields and to plant their corn.

During the 1982-83 grinding season 106,000 thousand tons of sugar were produced. The production adequately met the country's needs (7,000 tons) and realized a surplus of some 99 thousand tons, valued at some Bze \$33.7 million for export. This production comes from some 4,000 cane farmers, 1,600 workers at the country's two processing plants located at Libertad and Power Hill with capacity per year 40,000 and 70,000 tons respectively, and some 5,000 casual workers employed at harvest time.

Revenues fell over 20% in 1982. These low prices were moderated to a certain extent by the preferential quota prices granted to Belizean sugar in the U.S. and the European Economic Community, but one-third of sugar exports still had to be sold at the low world market price. The U.S. quota is 30,800 tons and the EEC quota is 41,500 tons. The industry is confronted with a number of problems, one of which is smut disease. Since its outbreak in 1978, smut infestation has spread to all cane growing areas. Smut-resistant seeds have been developed. Now smut-resistant varieties encompass more than half of the total acreage. The remaining acreage will be replanted with resistant varieties as monies become available. Another problem is low productivity; the average yield per acre is 15 tons compared with a world industry average of 40 tons, but the 1982 crop yielded the highest ratio of sugar to cane for the past five years. More widespread use of such proven measures as fertilizers, insecticides, plant rotation, and technological equipment would greatly increase productivity. The major problem facing the sugar industry is the multinational company which refines and markets all Belizean sugar has announced its intention to sell a controlling interest to the Government of Belize and local cane farmers or to close one

of its sugar refineries. The sale of a controlling interest would mean that present refining capacity would be maintained. Failure to agree on a sale would likely lead to closure of the smaller of the two refineries to reduce capacity to meet only quotas for U.S. and EEC.

2. CITRUS

a. General

Citrus ranks second to sugar cane on the list of economically important crops in Belize. The estimated value of the sugar cane crop in 1982 was US \$16.9 million while citrus was about \$8 million. A report by the American Consulate in Belize indicates that there are good prospects for the industry and strong demands from traditional customers such as Trinidad and Tobago. Eighty-five percent of the total production is processed into juices and concentrates.

Production has already outstripped processing capacity, even with the expansion project currently underway at one of the two processing facilities. Trade opportunities as a result of the CBI Trade Bill, would refuse infusion of capital from some source to take full advantage of its provisions. This bill provides duty-free entry of Belizean citrus products into the U.S. for the next 12 years. Projections for 1982 were that orange production would remain at 1981 levels, while grapefruit production would rise by 20 percent. This increased production goal may not be reached, however, due to a dispute between growers and processors over their pricing formula. Soft world market prices for grapefruit are also a problem. The Belize Citrus Growers Association are reviewing efforts to re-enter the EEC market after an absence of several years.

All the commercial citrus is located on the floor and foothills of the Stann Creek Valley and just inland from the central coast town of Dangriga.

The total citrus area is little more than 25 miles across at any point. There are approximately 8,700 acres now planted to citrus. Of this, 5,760 acres, or 66%, is oranges, and 2,940 acres, or 34%, is grapefruit. The acreage is divided among 320 growers, but there is a great variation in size of holdings. Fourteen growers, or 4%, control 66% of the acreage. One hundred-and-sixty growers have five acres or less. Ninety-three have from 6 to 10 acres and 55 growers have between eleven and twenty acres. Most of these 308 growers require outside employment to meet their family's income needs.

The industry also employs about 700 to 1,000 seasonal workers (both at the processing plants and at harvest time) each year.

At present, the groves are not in the best of shape. Many are old due to lack of replanting programs, and are poorly managed. Yields fluctuate between 175 to 250 boxes per acre while under good management there is the potential for about 350 boxes per acre. It is estimated that an infusion of some US \$4 million is required if the industry is to get back on a good footing and expand. On the other hand, world markets for citrus are highly competitive. Belizean exports of concentrate are protected currently in CARICOM and EEC markets.

b. Production

The citrus growing area has a hot and humid climate. Annual rainfall exceeds 100 inches (254 cm). The rainy season extends from May to February. Standing water reduces tree vigor and occasionally kills trees in scattered areas throughout the valley. Even during the rainy season there is ample sunlight which means conditions are ideal for weed growth. Moisture stress can occur in the citrus groves during the dry season. Hurricanes have occasionally caused heavy damage to the citrus crop, but generally cause little damage to

the trees themselves.

Various planting patterns can be found in the valley, but the most common for both oranges and grapefruit is 20 feet (6 meters) between trees in both directions. This arrangement results in 100 trees per acre.

While close spacing resulting in dense shade is a valid approach to reducing weed growth, it needs careful research in case of citrus. There is evidence that reduced air movement can lead to increased disease problems in the trees.

Citrus yields vary considerably; overall average falls below 200 boxes per acre (90 lbs./box or 40.8 kg. of oranges, 80 lbs./box or 36.2 kg. of grapefruit). World average is 300 boxes while growers in the U. S. harvest between 400 and 600 boxes per acre.

c. Biological problems

(1) Foot rot (*Phytophthora* spp)

This fungal disease is common in the citrus groves but the extent of tree or yield losses it causes remains unknown. It is known that the disease is introduced into the tree through wounds in the bark. In the process of cutting weeds around the trees with a machete and removing the vines growing up the trunk, many wounds are inflicted on the tree trunks.

This soil-borne disease is carried to the tree when rain hitting bare soil splashes water and soil onto the tree trunk. This must be remembered and the disease should be closely monitored as increased use of herbicides result in weed-free soil under the trees.

(2) Premature fruit drop

This is a fungal disease resulting in fruit drop very soon after pollination. The seriousness is largely dependent on weather, or probably more accurately on the air humidity around the trees. Fungicide trials have

not been successful due to the low level of disease in the research area. It is possible that weed growth on the ground or in the trees could, through transpiration or by reducing air flow, lead to an increase in this disease.

(3) Citrus nutrition

Most growers in the valley are now using commercial fertilizer. However, a large portion of it feeds weeds. Rates, time of application, and ratios of nitrogen, phosphorus, and potassium still need to be refined. Even more important is the need for lime applications. Levels of soil ph between 4.5 and 5.5 are common in the citrus groves. Phosphorus and, to a lesser extent, nitrogen and potassium are not readily available to the plants in highly acidic soils. Most growers need to start on a five-year program of lime applications.

(4) Replanting

Trees that die or are in poor condition are often not replaced. When they are replanted, the young trees rarely receive the extra care they need.

(5) Mexican fruit-fly (*Anastrepha ludens*)

This potentially serious pest is presently under fairly good control as the result of a regular spray program. Growers are advised to use a mixture of the insecticide malathion and PB7 bait on a 14-day cycle. Only a small portion of every other tree in the row is treated. For a fee, the Association will spray for those growers who cannot.

(6) Weeds

As in any humid tropical environment, the weed population in the citrus groves is diverse and aggressive. The traditional practice in the valley is to allow weeds to become established throughout the grove. Periodic slashing with a machete is used to temporarily control weeds under the trees. A tractor-drawn rotary mower cutting a six to eight-foot swath is generally used to set back vegetation between rows. The Citrus Growers Association will provide

the mowing service to small growers for a fee. Large growers have their own equipment. The slashing and mowing operations are conducted two to four times per year depending on the judgement of the owners or managers.

To follow is a list of weeds commonly found in the citrus groves, prepared by Research Officer Reynold Gabourel. Mr. Gabourel has received assistance in identifying some of the weeds from Dr. John Hammerton of CARDI (Caribbean Agricultural Research and Development Institute), Mr. Bryon Adams, a British tree crop specialist, and the Weed Research Organization of England.

-SOME WEED SPECIES IN CITRUS IN BELIZE-

Grasses

<i>Paspalum conjugatum</i>	<i>Sporobolus jacegemonti</i>
<i>Paspalum virgatum</i>	<i>Digitaria ciliaris</i>
<i>Paspalum paniculatum</i>	<i>Setaria geniculata</i>
<i>Panicum maximum</i>	<i>Dynodon dactylon</i>
<i>Panicum muticum</i>	<i>Cenchrus echinatus</i>
<i>Eleusine indica</i>	<i>Andropogon bicornis</i>
<i>Imperata brasiliensis</i>	

Sedges

<i>Cyperus ordoratus</i>
<i>Cyperus rotundus</i>
<i>Cyperus ferox</i>

Parasitic Weeds (Mistletoes)

<i>Struthanthus orbicularis</i>
<i>Struthanthus cassythoides</i>

3. BANANAS

The banana growing areas are located in the Stann Creek District. The banana plantations are run by both private farmers and by the Banana Control Board, with all marketing being done by a foreign multinational company. The Banana Control Board operates 355 acres and 28 independent farmers operate 1,145 acres. In 1982 banana exports generated BZE \$4.2 million dollars. The first 6 months of 1983 has shown an increase over 1982 production.

The industry has potential for further development and expansion because of an available protected export market, suitable land for expansion of cultivation, an existing basic infrastructure and an existing pool of local knowledge and expertise. In 1975, a program was launched to rehabilitate the industry. This has been hampered by Sigatoka disease and production levels not high enough to make direct exports from Belize possible. Thus all exports are barged to Honduras to be combined with shipments there, which increases transportation costs. The efforts to combat Sigatoka disease have been relatively successful. To combat low production, several new developments in areas of management and technical knowledge have been introduced. A CDC-funded irrigation project has helped to increase yields on existing acreage. In 1982, the industry was restructured under the direction of the Banana Control Board.

The overhead irrigation system installed at Cowpen is already operating on 400 of the 1,600 acres. It is expected to increase production by at least 15%. The rainfall at Cowpen is an average of 1.75 inches/week but is not uniformly distributed, therefore, the irrigation system is a supplement to the rainfall.

The actual mechanics of the irrigation system include a central pumping station, an underground network of water feed pipes and a series of risers in every 2.5 acres. The irrigation system will serve the dual purpose of providing enough water and at the same time allow fertilizer to be added year-round. Fertilizer must be applied in wet conditions for maximum effect.

Plans are now underway for the establishment of another 1,200-acre plantation in the Bladen Trio area. This could start production as early as 1983. The former Baramco estate which crashed after the infestation of the dreaded Sigatoka disease, a fungus which weakens plants and cuts production drastically, is now being revived. Three private operators are now rehabilitating plants

in the 1,200 acre plantation. This plantation in the South Stann Creek area will eventually be linked up with Cowpen irrigation system. In return for the irrigation, the private operators will lease the land to the Banana Control Board for 20 years. Extensive rehabilitation work is being carried out on a continuous basis, and the use of props has been introduced. One problem in the past was that banana trees, heavily weighted on one side with full bananas would crash to the ground because of high winds or soft soils during heavy rains, but no more because palmetto trunks now prop up all plants heavy with bananas. Also perforated plastic bags now dress all bananas on the tree to prevent insect damage which produces blotches and other cosmetic flaws not wanted in the high-quality world market. But all of this may not be enough to save the industry because of accumulated losses from past years, unless a financial relief package can be arranged.

4. CORN

It is planted in most areas of the country. Two suppliers are employed shifting cultivation and mechanized cultivation. Less than a decade ago, Belize suffered an annual shortage of corn even for direct consumption. This shortfall had to be made up by imports.

The 40 million pounds of yellow corn produced in 1980 and the 43 million pounds produced in 1981 have resulted in a healthy surplus. This production was produced by some 8,000 small farmers on 26,000 acres. Of the 43 million pounds produced in 1981, it is estimated that the country will absorb some 37 million pounds for human consumption and for use in the poultry and livestock industry as feed.

The surplus has been achieved through extension work, technical advice on good land husbandry, making available credit facilities to eligible farmers, and providing a guaranteed market through the Marketing Board. However, attempts

to export the surplus corn have not been successful, due to deterioration in storage because of inadequate drying methods and storage facilities, and due to the high cost of production which makes it noncompetitive on the world market. Efforts are now being made to increase local demand by growing varieties of corn more attractive and palatable for direct consumption and incorporation into other food products, e.g. flour. A drive is also afoot to improve grain storage methods and techniques, both at the farm and central depot levels.

5. RICE

There are two aspects to the production of rice in Belize. There is one large scale operator who is producing irrigated rice. This operation is highly mechanized and requires a high capital financial input, far exceeding what can be afforded or is available to the average farmer. This operation is export-oriented. On the other hand, the production of dry or hill rice for local consumption is handled mainly by 2,000 small farmers in the Toledo District of Belize. The aim has been for these farmers to produce sufficiently to meet the entire rice requirements of the country. Their production of 7 million pounds of rice in 1981 has met only 50% of the needs. The short-fall has had to be made up from the export-oriented rice operation. This solution makes no contribution to the advancement and well being of the small farmers, increases the cost of living, and results in the loss of potential foreign exchange earnings. So the present strategy in rice production is to increase the yields of the small farmers and hence their standard of living, through extension work based on applied research, and also to increase overall production by bringing more acreage under rice.

New areas are being cultivated to rice in the Belize River Valley. Of particular importance are the rice operations of Big Falls Ranch Ltd.,

Tennessee Agriculture Ltd., and Gillette Brothers. The Rancho Dolores Cooperative, the Mafredi Cooperative and the Mopan Farmers Cooperative also produce under the mechanized system. Big Falls Ranch Ltd., is the most highly mechanized operation, and the company eventually aims at cultivating 30,000 acres (a 3,000 acres increase per annum) in rice.

Paddy rice is milled by the Marketing Board at their mill in Belize City. Big Falls Ranch Ltd., carries out its own milling. The Marketing Board has a number of threshers which it operates in the main rice growing areas of the country.

Provisional production figures from the Ministry of Natural Resources indicate that 1981 was a good crop year for rice. Seven million pounds of paddy were produced compared with 4.5 million pounds of paddy in 1980. Reports are that both grain complexes, one in Belmopan and the other at Big Falls in the Toledo District are full to capacity due to the double-barrel bumper crops of corn and rice.

Government's decision to increase the guarantee price of the rice was one of the major incentives for the boost in production for 1981. The 1981 price for rice was 26¢ per pound of paddy well dried. This was up 16¢ from 1980. Other factors leading to increased production included more farm mechanization and increased use of the high yield "CICA" variety.

6. COCOA

Production as a commercial crop was proving popular until Hurricane Hattie in 1961, and recovery has been slow. The main commercial producer is Caribbean Investments Ltd., but Hershey Foods Corporation (U.S.A.) recently revealed plans to make their farm a model in this part of the world and that it will be a demonstrative Cacao farm for Hershey operations. Hershey Foods Corporation is the parent company for the locally registered

Hummingbird Hershey. They have spent roughly BZE \$8 million in the rehabilitation and planting of 1,000 acres of cacao. One target is to have an additional 400 acres under cultivation by early 1983. Their overall target is to establish a 5,000 acre cacao estate in the Sibun area.

Hershey owns only 1,800 acres, but has first option to purchase more land in the area from the 60,000 acres owned by Caribbean Investments Ltd.

Three hundred thousand pounds of cacao is expected to be exported this year. Yields per acre of cacao are on average 1,500 pounds of beans.

A project has just been initiated to establish cacao nurseries in the Toledo District with the cooperation of the Ministry of Natural Resources.

7. COHUNE NUTS

Cohune nuts are grown and used for a variety of purposes. The kernel of the nuts from the cohune palm yields a high grade oil for cooking. The extremely hard shell can be converted into charcoal which burns clearly and gives off an intense heat, carbon and wood flour which is a good moulding material and is also used as a base for face powders. Exports have been negligible.

8. OTHER CROPS

a. Edible Legumes

The most popular edible legume is Red Kidney Beans. At present, some 4,000 small farmers are involved in the production of this crop. Their production of 2.8 million pounds in 1981 versus 3 million pounds in 1980 is meeting only about 50% of the local demand. The drop in yield is attributed to late planting due to drought toward the end of the year. But the production of black beans (0.6 million pounds) ups the overall production figures for beans. The shortfall in production to meet local needs has to be imported.

Red kidney beans represents a difficult and low yielding crop to grow

under local conditions, while there are other legumes such as black-eye peas, pinto beans, and black beans that are as nutritious, easier, and more economical to grow. More production of these is being encouraged, along with a campaign to educate consumers to their use. This effort, if successful, should make the country self-sufficient in its edible legume requirements within the next five years.

Red kidney beans are normally planted after corn or rice in a rotation. Yields of up to 1,000 pounds per acre have been obtained under a semi-mechanized system of production.

Sorghum, though not widely grown now, has shown great potential in trials carried out. It can be grown more efficiently and economically than corn, yet it is as good and nutritious for animal feed, especially for pigs and poultry. It can also be mixed with wheat flour for human consumption. Expansion of production of this grain crop by small farmers is being encouraged and promoted.

Vegetables. At present, only some 100 small farmers are involved in vegetable production. This is a seasonal crop, and during the short production season, the market can be easily saturated. For most of the year, heavy importation of fresh vegetables has to be made to meet local demand. Research and trials are being carried out in the production of off-season varieties of fresh vegetables as well as in methods of vegetable preservation so that an all year round supply may be available and the need for importation of this product alleviated. For the long run, there may be excellent export possibilities.

Fruits. A wide range of fruits are produced by some 3,000 small farmers throughout the country. Though the supply of different varieties of fruits is seasonal, it is adequate to meet local demand. However, there is

scope for the promotion and expansion of production of such tree crops as coconuts and avocados. The former has the potential for processing into cooking oil, thus reducing importation of this item, while the latter, besides meeting local demand, has good export potential. They can be very useful cash crops for the small farmer.

Root Crops are popular ingredients in the local diet when boiled. A considerable quantity of yams, sweet potatoes and cassava are produced for local consumption, while Irish potatoes are also grown on a small scale.

The majority of vegetables is consumed domestically. There are no facilities for packaging and processing. Some fruits are exported. The exportation of vegetables and fruit goods could be increased if a marketing network could be established. The producers tend to plant all at the same time. The climate is suitable for production nearly year round. For instance, the progresso Vocational & Health Institute has propagated avacodos to be produced 8 months of the year instead of 3 to 4 months, the normal production season. It appears for Belize to compete in the world market, they must identify crops that can be produced during seasons of the year when these crops are not normally available from other countries in the Caribbean and South America.

b. PEANUTS

Peanuts have always been grown in Belize but it only began to catch on about five years ago as a possible money earner for farmers. Yields have been low, less than 1,000 pounds per acre.

Realizing the potential for peanut growing in Belize, the Caribbean Agricultural Research and Development Institute (CARDI) with the support of the Ministry of Natural Resources in 1980 started an agricultural research and development project and worked along with selected farmers in the Belize

and Cayo Districts on an experiment to boost peanut yields, which they did by better management methods, weed control and the use of pesticides and fertilizers. Yields on some farms tripled, but average yields per acre of peanuts range between 1,400 pounds to 3,500 pounds. To add to this, markets and prices are now good and much higher than the price of corn.

Peanut growing requires a lot of labor. One farmer can successfully manage two acres with the help of his family and by employing extra help.

The Belize Marketing Board in 1980 purchased most of the peanuts produced that year (15,000 pounds) at roughly 70¢ per pound. Last year the Board purchased 60 thousand pounds at \$1.00 per pound of the estimated 100 thousand pounds produced. Farmers sold the other 40 thousand pounds on the local market.

LIVESTOCK

1. BEEF CATTLE

Development in the cattle industry over the past several years has not kept pace with expectations. Beef production has declined since its 1978 peak of more than 2.5 million pounds to 1.9 million pounds in 1982. Exports of beef to the United States ceased in 1981 and the Government abattoir has voluntarily surrendered its USDA certification, although reinstatement of USDA approval would be easily accomplished. The Government is also continuing to explore gaining access to other foreign markets.

The national herd is currently estimated to be between 45,000 and 50,000 head. Normally this would meet domestic annual demand (about 2.3 million lbs. of carcass beef) and give a healthy surplus for export. Producers find it uneconomical to supply beef to the domestic market. Recently domestic price controls on meat have been adjusted to correct disincentives on beef production. Conditions on the export market are not good at present, in view of the current world recession. One aspect being seriously investigated has to do with more

meat processing for the domestic market. During 1981 some Bze \$13 million worth of processed meat products were imported into the country. With the large mainly undeveloped land resources in the country, relatively few major livestock diseases, and the availability of various improved pasture species suitable for Belizean conditions, there is ample scope for significant expansion in this industry, provided markets can be found. Even though large tracts of pasture land are available, clearing costs for improved pasture land range from \$50 to \$200 an acre. Renovation of the government-run abattoir is underway so that it may be recertified by the USDA and exports to the U.S. can resume. Negotiations are also underway for the abattoir to be taken over by a private company. The Abattoir has a kill capacity of 100 head/day. The recently approved USAID program for livestock credits will provide a major boost to the industry.

The popular beef breeds are Santa Gertrudis, Jamaica Red Poll, Jamaica Black, Herefords, Brahman, and Charolais Crosses. The government maintains herds for breeding and upgrading of the national herd. For this purpose, cattle are imported from various countries.

2. DAIRY

The dairy industry is still in its infancy, most of the fresh milk being produced by the Mennonite Community at Spanish Lookout in the Cayo District. This consists of one collection point for 50 farmers with an average herd of 5 cows. Western Dairies Ltd. of Spanish Lookout, supplies pasturized milk to local consumers. The main dairy breeds are Brown Swiss, Holstein, Jersey and Ayrshire.

The bulk of the country's milk supply is being imported as canned and powdered milk. The same applies to milk products such as butter and cheese. Efforts are being directed towards the expansion of production in this area so

that by the end of the next five years, there should be a significant reduction in the amount of milk and milk products imported.

3. SMALL LIVESTOCK

Some 2,000 small farmers are involved in producing poultry, pigs and other small livestock.

Poultry and poultry products are now sufficient to meet local demand. The Mennonite Communities are the main commercial producers. Their plant is capable of processing 4,200 chickens/day. Ninety farmers with an average of 2,000-3,000 chicks on hand at one time supply the processing plant. The country has become self-sufficient in the past few years, producing 3.0 million pounds in 1978. The bulk of poultry feed is still being imported, resulting in relatively high production costs. Research is being done in developing poultry and animal feeds from corn surplus and other locally produced grains such as sorgum and high protein waste.

Pigs are reared throughout the country. The government maintains a piggery at Central Farm for breeding and upgrading pruposes. Weaners are sold to farmers at reasonable prices. The Hampshire, Large White (Yorkshire) and Duroc Red are the most popular breeds. The piggery industry is now organized at a high level. Production meets local demand.

Agriculture for commercial honey production is concentrated in the Northern districts of Corozal and Orange Walk and in the Southern district of Toledo. It has unfortunately suffered from the aerial application of insecticides to cane fields. Exports in 1976 amounted to 320,000 lbs.

F. FOOD SUPPLY

Belize does not produce enough food to feed itself. Corn, rice, and beans are the country's native staples, but only in corn is production adequate to meet local needs. Local demand for rice is 20 to 25 million pounds annual.

but only about fifty percent of this is produced locally by traditional producers. The position is even worse with beans. While annual requirements are approximately 15 million pounds, only some 5 million pounds or 33.3% are being produced. Though other crops are also grown, for most, the local demand exceeds production. The end result is that Belize is a net importer of foodstuffs.

There is an over-all good availability of food supply, but the bulk of it is imported. With the present world-wide inflationary trend and high cost of food, this food supply is most easily available to those who can afford it. The impact of this situation, especially in the urban areas, is felt most by that segment of the population in the lower income bracket. In most cases their diet is inadequate. Physical hunger may be satisfied by the quantity of food taken, but the nutritional value of that intake may not be that which is necessary to maintain normal healthy bodies. This is reflected by the high incidence of malnutrition, especially among the young, and the susceptibility to disease. For example, the records at the Belize City Hospital show that between the period January to March, 1979, 39% of the children admitted were suffering from some degree of malnutrition.

In the rural areas, the pattern is the same, i.e., food intake is adequate and quality of intake questionable, but for different reasons. There is an old Belizean saying, "Be a farmer and never starve." However, you can have a full stomach and still be starving. Lack of agricultural skills and good land husbandry practices as well as lack of resources for full productive development of holdings inhibit crop diversification. The farmer eats what he grows, supplemented by imported foodstuffs when he can afford it. The end result is the same as in the urban areas: widespread malnutrition.

The areas in Belize most affected by malnutrition, (which is a good indicator

of quantity and quality of food supply), are the rural Corozal and Orange Walk Districts in the north and rural Toledo District in the extreme south. At first glance this state of affairs in the north is difficult to understand because this is the main sugar cane producing area of the country and is regarded as comparatively well-off. But therein lies the problem. Farmers grow only sugar cane and sell it to the processing plants. In turn they have to purchase all their food requirements, mainly imported foods, and these come high. The situation in rural Toledo is more understandable and can be attributed to poor agricultural practices and inadequate crop diversification.

One may go back to the basic question and ask why Belize can't feed itself. It has few people and land is its major natural resource. The fact is that much of this land is not accessible because of a lack of infrastructure. Even accessible land is not being worked to its full potential because of a poor land tenure system which does not provide much incentive towards development, a lack of tradition and skills in the majority of farmers, and inadequate credit facilities. Add to these the cultural attitudes which do not regard farming as a respectable undertaking as well as the myth that "imported must be best", and one can better understand this state of affairs.

The staple foods of Belize reflect the nation's ethnic composition and history. Wheat flour is the main source of energy, providing nearly 2 pounds of food to each individual per week, but has to be almost totally imported. This dependence on imported enriched hard wheat flour derives historically from the British presence and is currently a pattern found in all ethnic groups. Maya families form the major exception to this pattern, where maize (corn) is the most common daily staple and the more highly valued food. In all towns and most roadside villages, packaged plain or sweet bread is readily available, but most families prefer home-made breads. These vary, to some degree, by

ethnic group. Flour tortillas are preferred by most Mestizo families, who may reserve the use of maize tortillas for accompanying soup meals. The small round loaves known as Creole bread (or buns if sugar is added) are commonly prepared by both Creole and Garifuna women, as are fry jacks, powder buns, and Johnny cakes. These latter specialty breads are eaten by almost all urban residents, regardless of ethnic background. Bread preparation may differ, however, in terms of the source of liquid and fat. Mestizo and Maya women more often use lard and water, while Creole and Garifuna cooks prefer to use coconut milk. In addition, marcaroni, sweet and plain biscuits, cookies, cakes and "pan dulce" are occasionally eaten by all groups of people, which contributes to even greater wheat flour consumption. Nutritionally, enriched wheat flour is a good source of calories and iron, but requires an equal amount of a complementary food such as beans to provide a balanced protein.

The second most commonly used staple is rice. Maya families and rural families in general use less rice than others. Among rural families, those who raise their own, eat rice more frequently. Like wheat, rice requires a complementary food such as beans to provide a complete balanced protein. Rice and beans, reknown as a Caribbean Creole recipe, may qualify as Belize's "national dish" for it is eaten by all peoples in all regions. Many Mestizo, Creole, and Garifuna women prepare it with coconut milk. Nutritionally, the major problem concerns quantity. Seldom are these foods served in proportionate amounts by weight necessary to provide a complete protein..

Other second staples include green bananas, plantains, and root crops, such as cassava, coco, sweet potatoes, and yams. Usage patterns are more variable in these foods, with some families never using any or using some only rarely. Typically, coco is eaten with beef or used in soups. A combination of these foods, usually cooked with pig tails and seasoned with either coconut

or cohune oil, is known as "Bile-Up". Women of all ethnic groups prepare this dish on occasion. Garifuna women make a stew of green bananas (or plantains) with fish in coconut milk, a traditional dish called "tapau". Pounded boiled bananas or plantains, called "fufu" in Creole or "hudut" in Garifuna is most often served in Garifuna households. Boiled cassava is eaten on occasion by most Belizean families, but among the Garifuna, cassava has the greatest value and meaning. "Areba", a dry biscuit-like bread made of cassava flour, is the ancient staple food of the Amerindian ancestors of the Garifuna people. The techniques and equipment necessary for its production have been carried down through the millenia from their original place of invention in the Amazon region of South America. As in the case of the maize tortilla for the Maya people, "areba" holds great historical and cultural meaning for the Garifuna. At present, it is not consumed daily in most homes, however, but is reserved for special meals and celebrations. In rural Garifuna villages, "areba" is more commonly eaten. In general, root crops and the banana-plantain complex are more frequently eaten by urban families than rural ones.

Irish potatoes form a special case among root crops--since, at present, they are imported. Creole families in particular use Irish potatoes frequently, nearly twice as often as Garifuna or Mestizo families. Maya households use few Irish potatoes. Mashed potatoes and eggs, a nutritionally sound combination, is a commonly used weaning food, especially among Creole youngsters. While Irish potatoes are valuable nutritionally, coco and sweet potatoes are even better and can be produced locally at far less cost.

Consumption of other vegetable foods in Belize is relatively low compared to most nearby nations. Onions, tomatoes, cabbage, peppers, and carrots are available almost year-round but are expensive relative to incomes and therefore eaten in small quantities. Urban residents consume a greater variety of these

vegetables than do rural people who seldom grow them in their gardens. Okra and green corn are eaten by all ethnic groups, but are available only seasonally. Only hot peppers are regularly grown by many rural families. Leafy green vegetables are nearly non-existent in the majority of diets. Only in a few households, mostly Creole, is "callaloo" consumed. "Chaya", another natively grown leaf, is eaten by some Maya and Mestizo families, but very seldom.

Fruit consumption, on the other hand, is fairly great in all families and provides many of the vitamins and minerals necessary to a healthy diet. Especially among children, a wide variety of fruits is consumed, usually in large amounts during fruit seasons. Typically, children do not wait until fruit is ripe, and raid trees of their green, unripened fruit. Citrus, papaya, and pineapple are widely used for juice making. The principal limitations on fruit consumption are related to weather damage and seasonality, not to taste.

Oilseeds are notably lacking in Belizean farm productions. Coconut or cohune oil is widely enjoyed, but expensive, difficult to produce in quantity, and seriously deficient in essential fatty acids. Lard, vegetable oil, and margarine, all of which are somewhat better nutritionally, must presently be imported. Urban households more commonly use bottled vegetable oils, margarine, or butter than do rural families.

Sugar consumption is generally high. Few families consume less than one pound of refined white sugar per person weekly. A less refined, cheaper and more nutritious brown sugar is available, but is seldom used except in baking. Sugar consumption is largely in the form of baked goods and drinks, with the ubiquitous "Ideal", or frozen stick of Kool-Aid, as the primary source. In some urban households, more than 120 Ideals are purchased weekly. In rural areas, the lack of refrigeration usually limits "Ideal" consumption, but soft

soft drinks, cookies, candy, and heavily sugared tea or coffee frequently make up the difference. Since sugar consumption has been definitely linked to the development of dental cavities and has an aggravating effect on those persons who may be predisposed to diabetes, it is unfortunate that an increasing proportion of families are depending on sugar as a major constituent of daily energy intake.

Meat consumption, including fish, varies regionally. Game meat is eaten in few homes more than once or twice a month, and most often among rural residents. The principal source of animal protein (excepting dairy products) for most families is the chicken and its eggs. Beef and fresh pork are more costly and less frequently available in rural areas. Fish is widely available along the coast and, especially among the Garifuna families, forms a steady source of animal protein. Inland families very seldom eat fish. The lack of suitable storage discourages the greater consumption of fresh meat. Many rural families explain that they would buy more fresh meat but can only purchase it on weekly or bi-weekly trips to town. Instead, they obtain several meat meals each week from either canned or salted varieties, such as corned beef, potted meat or pigtails, none of which is less expensive than fresh meat. In 14% of the families, meat of any kind is consumed no more than once per week. Eggs, on the other hand, provide a fairly stable substitute for meat in almost all households. Contrary to expectations, little difference in egg consumption exists between rural and urban households or among ethnic groups. During 1979, when eggs cost about \$2.10 (Bze) per dozen, an average of 1.75 or almost 2 eggs per person were consumed weekly.

Urban children eat a greater variety and receive larger servings of food than do rural children. Urban families consume an array of from 29 to 50 different items, while rural diets are more restricted, ranging from 12 to

37 items. When children's measured intakes are arranged along a rough continuum of socio-economic distribution, ranking families from subsistence farmers to professionals, children's energy and protein adequacy increase accordingly. The major patterns of food consumption and likely nutritional problems are (1) energy intake is frequently inadequate, especially among rural children; (2) protein intake is low in quality, i.e., the majority of protein is obtained from grains and other vegetable foods in inadequate complementary proportions of amino acids; (3) for most nutrients, socio-economic status and residence clearly influence dietary variety and adequacy; (4) variation in eating patterns within each ethnic group is fairly large and overlaps between ethnic groups. The major exception to #4 is the Maya, whose rural residency and low economic status limits consumption.

Whenever children are sick, the nutritional adequacy of any diet may be seriously compromised. Pregnant and lactating women are also under additional nutritional demands.

In summary, Belize exemplifies a food situation similar to that of other developing nations. Traditional patterns of food consumption, while still present, are steadily being eroded by a general acculturative process in which native foods and values are replaced with imported ones. Further, Belizean eating patterns reveal a shift to greater dietary variety with urbanization, an increasing dependence on sugar and imported staple items, and an inadequate diet for many children. However, the Belizean food situation fares well in international comparisons. Extensive unused land resources and a greater educational level among Belizeans than is common in under-developed nations combine to hold the promise of a solution to the nation's present food problem.

FORESTRY

Timber is one of the country's few natural resources and is still the

major building material. Today timber is scarce and expensive due to inactivity of the small sawmill operators who are the traditional suppliers of the local market. The major factors responsible for this inactivity are government consumer price controls on timber and inflation due to escalating costs of fuel. The big operators produce mainly luxury hardwoods that are destined for the export market. Production has also been hampered by the lack of transportation infrastructure and by the shortage of capital.

The forestry industry is confronted with developing a vast potential for tropical hardwoods. A United Nations study estimated that about 49 million cubic feet of tropical hardwoods can be cut annually on a sustained yield basis. Total production in 1980 was less than 1 million cubic feet. Production of mahogany, cedar, and pine has declined steadily since 1975, while production of the lesser known hardwoods has increased. Local production falls short of local demand, and, as a result, timber has to be imported. Limited reforestation, as well as poor infrastructure, act to constrain the development of this industry.

At present about 6,397 square miles of Belizean territory are classified as forest land, of which private land comprises 2,311. The remaining 4,086 square miles of State Forest is made up of approximately 1,137 square miles of production reserves, 1,668 square miles of unreserved production forests, and 1,281 square miles of protection forests. Plans are almost completed to transfer about 800 square miles of land from the unreserved production category to that of production reserve.

The Forest Department, under the direction of the Minister of Trade, Industry, Cooperatives and Consumer Protection, pursues the policy of establishment and preservation of a Government Forest Estate in order to ensure an adequate supply of timber and other forest produce at a reasonable price for

both the domestic and export markets. In addition, it controls the exploitation of state-owned and private forest. It encourages the improvement of the quality of sawn lumber for export by the institution of timber grading, the encouragement of air and kiln seasoning, and accurate sawing and machining. The Department also gives advice and encouragement for the setting up of forest industries. Sawmilling and other forest industries received a good measure of security for raw materials since a policy of long term forest concessions has been followed.

Presently, about 40 sawmills of varied production capacities operate in Belize. For the past three years, a plant has been in operation which produces resin and turpentine (naval stores) from crude pine gum bled from living pine trees. There are also a number of shipyards and furniture plants, some of which produce items for the export market. Treated power and telephone poles are other commodities now being produced.

The government is now trying to attract industries for the production of plywood, chipboard, pre-fabricated houses, dyes from logwood, and tannin from mangrove. Although mahogany and cedar still make useful contributions to the country's external revenue, other forest tree species have begun to increase in importance.

The production of chicle from the sapodilla tree has continued to increase over the last few years. Paper and fiberboard are mostly imported.

The Forest Department is continuing and expanding its program of fire protection and natural regeneration schemes in the pine forests and artificial regeneration of fast-growing tropical hardwood species continues. Forest inventories carried out in production forests so far indicate that the growing stock of utilizable species is far in excess of one billion board feet.

Principal Forestry Officers are: the Chief Forest Officer, H. C. Flowers;

and the Principal Forest Officer, E. O. Bradley.

FISHERIES

The fishing industry is confronted with depleted resources within its prescribed fishing sphere as well as increased poaching by foreign fishing boats. Poachery is difficult to control but with the addition of two patrol boats and two aircrafts to the Belizean Defense Force, it will be easier.

The reported catch of all types of fish has declined steadily from 1977 to 1980. Bouyed by high prices, the industry enjoyed greater revenues in 1981. High prices contribute to the problem of over-exploitation of the available resources.

Deep-sea fishing, which would greatly extend the sphere of potential resources, is practically non-existent. It has been greatly discussed but feasibility studies, technology, and capital are all lacking.

The coastal waters provide ample supplies of fish for domestic needs. There is a well-established fishery industry which makes a substantial contribution to the economy and provides employment for over 800 full-time fishermen of whom some 500 are members of the six fishermen cooperatives. There are also several hundred part-time fishermen and employment in packaging and freezing plants numbers some two to three hundred persons. The industry is subject to strict governmental control directed at obtaining the maximum exploitation of this natural resource while at the same time, applying whatever restrictions are considered necessary in the interests of conservation.

Restrictions in force cover the taking of fresh water fish for export for which a license from the Ministry of Trade and Industries is required; the sizes and meshes of nets which may be used; the weight of turtles which may be landed, and the enforcement of a closed season for turtle fishing.

A tax is levied on fisheries exports not including fish heads. The

responsibility for the execution of the government's development and conservation policies is vested in the Fisheries Unit of the Ministry of Trade and Industry.

The principal products of the industry are lobster (fresh/frozen), scale-fish (fresh or dry salted), conch, shrimp and some turtle meat.

The spiny lobster was the first of the export fishery industries to develop, and is still by far the most important. This fishery is under strict conservation regulations, with seasonal catch limits, closed seasons, and minimum size limits. It may be exported only by fishing cooperatives, which are allocated export quotas at the beginning of every lobster season, which runs from July 15 to March 14, dates inclusive in any year. The lobster fishery is under study by the Fisheries Unit, assisted from time to time by FAO experts.

There are six fishing cooperatives. From north to south these are:

1. The Sarteneja Fishermen Cooperative. It is the smallest and has no freezer of its own, but processing is done by National Fishermen Producers Plants in Belize City.
2. The Caribbean Cooperative on Ambergris Caye, which has its own freezing plant at San Pedro, on the island, and a shrimp trawler. The frozen lobster tails produced by this group are picked up at San Pedro by vessels enroute to U.S. ports. They supply the domestic market with shrimp and export the surplus.
3. The Northern Fishermen's Cooperative which fishes out of Caye Caulker where a pick-up station is located. A carrier boat takes the lobster tails to the cooperative's own freezing plant in Belize City. There are also member fishermen operating from the city.
4. The National Fishermen Producers Cooperative which has its headquarters and freezing plant in Belize City.
- ✓ 5. The Placencia Cooperatives operates its own freezing plant in Placencia which was financed by Booth Fisheries and built in 1967. Freezer ships of this company which carry shrimps from operations in Nicaragua call at Placencia to pick up lobsters for delivery to Brownsville, Texas. They also have a trawler.
6. The Southern Fishermen Cooperative is the most recently formed cooperative based in Punta Gorda. Placencia Cooperative's freezing plant will be utilized to hold their produce for processing and marketing.

The two plants in Belize City also pack fish (red snapper, grouper, and freshwater catfish) and conch meat for export. The latter has in recent years found a ready market in the U.S. to which some 95% of all fishery products are exported. This new fishery together with scale-fish operations provides year-round employment for both fishermen and plant workers.

AGRICULTURAL ASSOCIATIONS

1. The Department of Agriculture concentrates on increasing overall productivity by instructing small farmers in modern methods of cultivation and husbandry and persuading them to put the knowledge so gained into practice. Their success is, however, limited to the rate at which they can persuade large numbers of the farmers to change from their age-old system of shifting cultivation to a system utilizing modern mechanized methods.

The Department maintains a central research station at Central Farm in the Cayo District where crop, livestock, and pasture research are carried out. Research is also conducted on the various District Agricultural Stations throughout the country. Results are conveyed to the farmers through the Department's Extension Division.

Services supplied to farmers by the Department include: mechanical and veterinary services; land clearing, ploughing, and harrowing, etc. are carried out by the Department (at subsidized rates) in an effort to stimulate mechanized farming since these services are in short supply in the private sector.

The Department also runs a small Agricultural Training School at Central Farm which offers in-service training to the Department's personnel as well as short courses for farmers on specific subjects, e.g., crop production and livestock management. President of the Belize Agricultural Society is Dr. J. Cal.

2. Marketing Board, a statutory body, was established in 1948 in order to stimulate interest in the growing of staple food crops to meet domestic

requirements. Its main functions are purchasing producers' crops at guaranteed prices, processing and storing crops purchased, marketing crops locally and abroad, and providing marketing intelligence for government and commercial firms. The Board offers an assured outlet to farmers for their surpluses. It also administers the Agricultural Credits Fund and the Small Farmers Loan Fund.

The Marketing Board is comprised of a Chairman, appointed by the Minister of Agriculture, Land, two ex-officio members (the Financial Secretary and the Chief Agricultural Officer) and five other members. The Chairman is the Honorable Florencio Marin, and the position of Secretary is held by the Marketing Officer.

3. The Sugar Board, Xaibe Street, Corozal Town, is a statutory board set up in May of 1960 to control and regulate the sugar industry and the production of sugar cane. It comprises representatives of the Ministry of Trade and Industry, the Department of Agriculture, manufacturers, cane farmers and public interests.

4. Cane Farmers Association was formed in 1959 to act on behalf of the cane growers and to negotiate on their behalf with the Sugar Board and manufacturers; to give the farmers technical and financial assistance from monies borrowed for this purpose. A Bill amending the SCFA Ordinance passed in September, 1965, requires the Association to submit annual estimates of its revenue and expenditure to the Minister of Trade and Industry.

The Association comprises two Divisional Associations (Corozal District and Orange Walk District), each comprising seven District Branches.

The Cane Farmers Association is administered by a Committee of Management comprising six members (three from each Division) elected annually in November. The chairmanship and vice-chairmanship are alternated.

5. Belize Citrus Growers Association was established by the Citrus (Processing and Production) Ordinance of 1967 with the following objectives:

- (a) promote growing of citrus, delivery to processors, and extension and welfare of the industry;
- (b) assist in settling terms and contracts for growers, processors, and labor;
- (c) buy, sell, and deal in fertilizer, equipment, and materials;
- (d) invest and deal with money of the Association; and
- (e) obtain and/or extend financial aid for members.

All of the growers are members of the Citrus Growers Association which is financed by an assessment of no more than 5 1/3 Belize cents per box of fruit delivered to the processors. The Association is governed by a Board made up of nine growers. There is also a Research Committee composed of growers, employees of the Association, staff of the Ministry of Agriculture, and miscellaneous "specialists" associated with the industry. A Citrus Control Board is responsible for negotiating with the processors for fruit prices and in regard to disputes that might arise. A Harvest Committee regulates the flow of fruit to the processors. There are about twelve paid staff of the Citrus Growers Association including a General Manager and a Research Officer. The research effort, including some long term, unfinished and unreported studies, is coming to a halt due to the resignation of the Research Officer.

Most of the other staff of the Association are clerical, or equipment operators who conduct the fertilizer application service and mowing of weeds between tree rows.

6. The Citrus Control Board, a statutory body, was established in 1966. It comprises a chairman and eight other members. Two ex-officio, the Permanent Secretary to the Ministry of Trade and Industry as chairman, and the Chief Agricultural Officer; two each representing the Citrus Growers' Association and the Processors; and three appointed by the Minister from persons not connected with the industry.

Its main objective is the attainment of cooperation towards organized development of the industry as a whole by whom it is financed through a levy on each box of citrus delivered to the processors. It is responsible for such matters as the authorization of the Citrus Grower's Association to issue licenses to producers for delivery to processors; determining the basic quota for each producer; arbitrating disputes within the industry; and advising the Minister on the granting of import or export licenses, and on control of sale, including pricing of citrus, processed or not, inside the country, and the fixing of the annual price of citrus after discussions with the producers and processors.

7. The Fisheries Advisory Board comprises eight members of which three are appointed by the Minister of Trade and Industry, two by the Belize Fishermen Cooperative Association, one by the Belize Rural South Representative and the Comptroller of Customs. The Chairman is the Permanent Secretary, Ministry of Trade and Industry.

8. Proposed Organizations. Legislation is now before the House of Representatives to set up the Grain Growers Association and the Grain Commission.

The Grain Growers Association will bring together grain growers in one body in an effort to promote the development of the industry, particularly corn, rice, and sorghum. It will do this by encouraging production of better quality seed, striving to provide training facilities in the industry, and encouraging better utilization of grain and their by-products for feed.

A Committee of Management will administer the Association which, like the Cane Farmers Association, will have different divisions and branches.

The Management Committee will be made up of six members, of which each division will nominate two, and a Chairman. The first committee, however, will be appointed by the Minister of Natural Resources until the first annual

general meeting of the Association.

The Grain Commission will be to the grain industry what the Belize Sugar Board is to the cane industry. The Commission will include three ex-officio members, namely the Permanent Secretary to the Ministry responsible for Agriculture, the Head of Extension Services Division of the Agriculture Department, and the General Manager of the Marketing Board. Other members will include six grain growers who are members of the Association, and three persons appointed by the Minister of Natural Resources. One will represent grain processors, and two others will be persons having no connection with the grain and feed industry.

The duties of the Commission will include advising the Association, the Minister, the Marketing Board and Grain processing units on any matter concerning the grain industry and arbitrating when requested in any dispute between buyers and producers or other parties.

In effect, the Grain Commission will regulate the industry and advise interested persons and bodies as to its welfare. As such, it will bring together producers, processors, and government in a forum able to coordinate the development of the grain industry in Belize.

J. LAND TAX SYSTEM

The Land Tax Act of 1982 was passed by the House of Representatives in October, 1982. As the new legislation comes into force, the old Land Tax Ordinance and the Land Tax Rural Utilization Ordinance will be repealed.

The new law will introduce a land tax system based on real value of unimproved land. This is in contrast to the old system under which tax rates were based on the type of vegetation.

According to a recent Lands and Survey Department report, the main advantage of the new system over the old is that it is directly related to market value.

The system of tax on vegetation cover (different rates for high forest, medium forest, etc.) has no relation to true value. Furthermore, it does not provide an adequate base for proper revaluation if taxes are to be realistic. This is so because the application of various rates of tax applicable to those varying classes, reflected the intention to tax land according to its income earning potential with forestry ranking as the "highest and best use" to which land could be put.

As the Minister of Natural Resources said in presenting the new land tax bill to the House of Representatives, the old tax system has its roots in the colonial era when forestry was Belize's prime economic activity. Under the old system, for example, two persons, one having 100 acres under medium forest in the Toledo district and the other having 100 acres of land under medium forest near Belmopan, pay the same rate of tax. The new law would clear up this inequity, probably changing more tax for the more valuable land near the capital and less for the land in the faraway district of Toledo.

One of the prime elements of the new Land Tax Law is a "Fiscal Cadastre". This is essentially a list which identifies each property in the country to be taxed, its ownership, and its taxable value.

To the Valuation Section of the Ministry of Natural Resources will fall the job of drawing up valuation rolls for the entire country. Land will be divided into three categories: Agricultural Land, Suburban Land and Beach Properties. According to the Permanent Secretary in the Ministry of Natural Resources, Mr. James Hyde, this exercise should be completed before the end of 1983. Mr. Hyde, who holds a BSc. in Estate Management and is also a Chartered Evaluation Surveyor, developed the new tax system. He says that once this "Fiscal Cadastre" is compiled, the Minister will, by regulation, determine the rate of tax to be paid on the three categories of land.

This will mean that all owners of a particular type of land (for example, agricultural land) will pay the same rate of tax, but not the same amounts since the valuation rolls will give different unimproved values to different parcels of land. The tax to be paid will be determined by the unimproved value of the particular piece of land. The concept of unimproved values relates to that value which land would have if left in its natural state. However, its potential use taking into consideration such factors as location, soil, accessibility to roads, rivers, seas, markets and public utilities will determine land value, but not any land development and improvement. By excluding increased land value resulting from the efforts of land-owners, no disincentive to development arises.

On the other hand, equity to landowners results through the distribution of the total tax burden among landowners in proportion to their relative values. The owners of more valuable land will pay more; the owners of less valuable land will pay less.

The classification of rates and types of land is as follows:

<u>CLASSIFICATION</u>	<u>RATE PER ACRE</u>
Savannah: Wet dry scrub swamp	\$0.06
Savannah: Pasture land subject to inundation	.07
Pine Ridge 1st class	.10
Pine Ridge 2nd class	.08
Pine Ridge 3rd class	.08
Low Forest	.09
Medium Forest	.13
High Forest	.15

An additional tax of 30 cents per acre is levied on land within 1 mile of a public road and 15 cents per acre on lands between 1 and 2 miles from any road. A tax is also levied on large rural landholdings which are idle.

PROPERTY TRANSFER TAX Value of Property (U.S. DOLLARS)	TAX RATE (Percent)
National \$1,000-\$7,000	3
\$7,500 and over	5

PROPERTY TRANSFER TAX	TAX RATE
Value of Property (U.S. DOLLARS)	(Percent)
Non-National	6
\$1,000-\$7,000	
\$7,500 and over	8

Taxes are payable yearly on the first day of April each year and are calculated on a percentage of the unimproved value. For this purpose, the Commissioner of Lands and Surveys will issue a notice of assessment. Taxes are payable either by the owner or by the person in possession of the land. If tax is paid by the latter, the amount paid could be deducted from the rent.

Valuation rolls are open to public inspection at all reasonable times. Apart from the requirement to pay tax, one has also to perform the following duties:

- a. If an owner or occupier of land, one must supply all necessary information to the Chief Valuer to enable him to make a correct valuation.
- b. If the owner or the purchaser of any land sold or alienated, one must within 30 days of change of ownership, inform the Chief Valuer and file a new return.

The General Revision will be every three years unless the Chief Valuer is of the opinion that any such revision should be postponed. For the purpose of effecting a General Revision, the Chief Valuer will send a notice to the owner requiring him to submit a return within three months of a specified date.

PROPERTY OWNERSHIP

Government land is not normally made available to non-nationals, but where an investment would make a substantial impact on the country's economy, Government may lease lands to foreigners with an option to purchase after satisfactory development.

Private land may be purchased at a price ranging from Bze \$75 to Bze \$125 per acre uncleared. Land clearing costs run from Bze \$250 to Bze \$350 per acre, depending on the type of vegetation.

The Aliens Land-holding Ordinance requires that any foreigner who is not a British Subject or who has not been residing in Belize continuously for a minimum period of three years must make an application to the Minister of Natural Resources for a license to purchase land in Belize, provided the land, if urban, exceeds half an acre in the aggregate, or if rural, exceeds 10 acres in the aggregate. This restriction is intended to prevent land speculation and to discourage non-serious developers. The license is recorded in the General Registry as a deed. The terms and duration of such license are negotiable, but generally will require the licensee to do a certain amount of development work or spend a certain amount of money on development of the land under license during the period of licensure. The Minister may, at his discretion, alter, amend or extend the terms of such license.

K. CREDIT

In the past, local bank financing has been limited to short-term credits (90 days or less) and overdraft facilities using funds provided from local bank deposits. Loan funds from the private sector portion of the CBI funds became available at the end of August 1983 and will provide medium and long-term financing which had previously been unavailable. Terms will be from 5 to 15 years at market interest rates, currently 14 percent. Grace periods of up to two years are negotiable.

CHAPTER TEN
PUBLIC FINANCE

The budget of Belize, in terms of size, has the appearance of one found for a medium-size city rather than for an independent country. Revenues for FY 1982-83 are projected to be less than Bze\$100 million, all of which will be derived from tax collections. An additional Bze\$85 million for capital improvements will be obtained in the form of loans and grants from foreign countries.

In the public sector, made up of Central Government, six City Councils and/or Town Boards, and seven autonomous public agencies (The Belize Electricity Board, the Belize Central Bank, the Water and Sewerage Authority, the Marketing Board, the Belize Telecommunications Authority, the Development Finance Corporation, and the Reconstruction and Development Corporation), Central Government is by far the largest spender. The estimates for 1982/83 project an expenditure of Bze\$81.4 million for recurrent costs and Bze\$105.3 million for capital development, a total of Bze\$186.7 million. Of this, Bze\$50.4 million, or approximately 27% of the entire budget, is earmarked for the maintenance or expansion of Health, Education and other Social Services. Another Bze\$36.9 million is slated for spending on the maintenance and expansion of existing agricultural and forestry programs, while some Bze\$55.7 million will be spent on maintenance and expansion of existing infrastructure. The main source of funds for financing the public sector are derived from taxes levied. The anticipated revenue from this source is shown as follows:

Recurrent Estimates of Revenue for 1982/83 (Bze\$)

Custom and Excise Duties	\$44,500,000.
Income Tax, Land Tax, Estate Duties, etc.	31,800,000.
Miscellaneous Licenses Fees	1,850,000.
Rents and Royalties	950,000.
Post Office	2,800,000.
Interest and Loan Repayments	3,187,410.
Revenue from Government Departments and Services	6,922,345.
Special Receipts	<u>4,500,000.</u>
	\$96,509.755. (Bze)

The above figure will adequately finance the country's recurrent expenses and leave a surplus of \$15.1 million for contribution towards the capital development expenditure. Capital development projects are underfunded initially. Projects are identified at the beginning of each year and authorized and approved as funds become available. However, the bulk of the capital expenditure are financed from grants and loans from foreign countries and banks.

External aid has been a feature in the expenditures of the public sector since the mid-1960's. The country's main partners in her development efforts have been the United Kingdom Government, the Caribbean Development Bank, the Canadian International Development Agency, and more recently the European Development Fund. Since independence, the United States Government has joined in direct aid programs with the Government of Belize.

Of the 1982/83 Capital Expenditure Budget of Bze\$105.3 million, some Bze\$87.3 million must come from the above external sources, while the remainder will come from the recurrent budget surplus and the Capital Revenue Budget. With this type of financing, the country does not carry a very large public debt. On December 31st, 1981, the Public Debt stood at Bze\$54.4 million.

However, with the country heavily dependent on imports, especially foodstuffs, there is a growing deficit in its international trade transactions. This deficit was in the region of Bze\$88.9 million in 1981. This deficit was offset to a large extent by remittances sent home by Belizeans living abroad, estimated to be between 40,000 and 100,000 dollars, mostly in the United States.

The Government's financial accounts showed some deterioration in 1981 and 1982, as the Government took steps to keep expenditures in line with decreasing revenues. To help bridge this gap between revenues and expenditures, the Government turned increasingly to domestic borrowing through the Monetary Authority. The amount of treasury bills outstanding increased by 90 percent in 1981, rising from \$3.6 million to \$7 million. At the same time, Monetary Authority advances to the Government went from \$1.9 million to \$6.3 million. During the first nine months of 1982, treasury bills outstanding increased an additional 19 percent and advances rose by 11 percent. The total of treasury bills outstanding by September, 1982 was close to the statutory limit.

INCOME TAXES

Personal income taxes are structured on a very progressive base ranging from 5 to 50 percent of annual income. The income tax brackets (in U.S. dollars) are as indicated below:

<u>INCOME BRACKET</u>	<u>TAX RATE (PERCENT)</u>
Less than \$500	5
\$500 - \$1,000	6
\$1,000 - \$1,500	8
\$1,500 - \$2,000	10
\$2,000 - \$3,000	15
\$3,000 - \$4,000	20
\$4,000 - \$5,000	25
\$5,000 - \$7,000	30
\$7,000 - \$9,500	35
\$9,500 - \$14,500	40
\$14,500 - \$30,000	50

Tax Deductions are as follows:

1. Ten percent of earned income not to exceed \$400.
2. Personal Allowance: Self.....\$600
 Wife.....\$400
 Wife.....\$300 (if wife is working)
3. Child Allowance: Each child.....\$250

An additional allowance of \$200 is granted for children of primary school age, or \$500 for post-primary education abroad. Deductions of up to \$250 are allowed for dependent relatives and allowances are also granted on life premiums up to \$600 and gifts to charity.

Corporations are taxed at a fixed rate of 45 percent. However, many businesses may qualify for a tax deduction.

CURRENCY

The monetary unit is the Belizean Dollar (Bze\$). The current exchange rate is Bze\$2 to U.S.\$1. Coins are minted in denominations of 50, 25, and 10 cents and are made of cupro-nickel. Five cent coins are made of nickel-brass and one cent coins are made of bronze. The Belize Monetary Authority is responsible for the purchase, issue and re-issue of currency notes on the Government's behalf.

BANKING SYSTEM

There are four commercial banks and fifteen insurance companies operating in Belize. The banks provide short-term credit but little long-term funds, even for mortgage financing. The involvement of the insurance companies in recycling savings into productive investments is extremely limited. The only financial institution that makes available medium and long-term loans is the Development Finance Corporation. This is a fully owned government statutory corporation. The Government has been successful in mobilizing external resources

to fund the Corporation's operation. So far, loans have been approved in the agricultural sector, for housing, manufacturing, tourism, services, and student loans, and in some cases, it has taken up an equity position in some investments. At the end of 1979, the Corporation's resources stood at Bze\$3.6 million.

The Belize Central Bank (recently upgraded Monetary Authority, which came into being in 1977), functions as a general clearing house. It has the responsibility for fixing the rates at which stipulated foreign currency may be traded. It undertakes at the same time to buy and sell to the banks stipulated foreign currencies by way of cover for authorized transactions at guaranteed rates. This has helped to reduce the cost of selling and buying foreign exchange. The Bank's dealing in Government Securities has increased and has prepared the way for the establishment of a capital market.

Credit Unions and Co-operatives also play a very important part in the economy and business life of the country. Many of these organizations can be found scattered throughout the country. There is a vigorous circulation of money through these organizations, resulting in much economic activity.

INVESTMENTS

Real public investment has declined in the past few years as pressing recurrent costs have been given priority over capital investments. While the government's capital budget has continued to increase, the gap between the amount budgeted and the amount spent has also risen. Over the last several years, an average of only 37 percent of the money budgeted has actually been spent. As a result, many development projects with foreign assistance components have been postponed because of a lack of counterpart financing by the Belizean government. In a recent midterm revision of the FY 1982-83 budget, an additional \$3 million was cut from the capital budget in order to bring overall budget expenditures into line with anticipated lower revenues.

Private investment continued at a low level during 1981 and 1982. Most manufacturing concerns are small businesses whose production is geared toward satisfying domestic demand. Over the twelve-month period ending September 23, 1982, five development concessions were granted by the Ministry of Trade and Industry. The only new industry to be introduced into Belize during this period was an aquaculture project. On the negative side, Big Falls Ranch, a farming operation which produced more than half of Belize's rice, went into receivership and reduced its acreage under cultivation by 80 percent. A \$3.5 million CDC loan to expand citrus production will soon be ready for disbursement.

The slow rate of private investment has had several causes. Government domestic borrowing exacerbated an already tight capital market. Loans were difficult to obtain and collateral requirements were high. Long-term loans, the type of loan best suited for investment purposes, were particularly scarce. The local business community, conservative in nature to begin with, was even less inclined to assume risk during this recessionary period.

BALANCE OF PAYMENTS

Belize's trade gap narrowed from \$16.8 million in the last three months of 1982 to \$12.5 million in the first quarter of 1983. An increase in both the level of domestic exports and retained imports occurred in this period. A 65 percent rise in domestic exports brought earnings up to \$34.9 million which compared closely with earnings in the corresponding period in 1982. Imports for domestic consumption rose from \$38.0 million to \$47.4 million, an increase of almost 25 percent. On the other hand, Belize's re-export trade continued to falter falling to \$4.5 million for the first quarter of 1983. Gross earnings from the re-export trade for the same period in 1982 amounted to \$28.0 million.

MONEY SUPPLY

In March 1983, money supply reached its highest level since August 1981. After being relatively stable for most of 1982, money supply climbed 11.7 percent to \$46.8 million in the first three months of this year.

The currency demand of the public underwent its seasonal expansion in the final month of 1982, reaching \$20.6 million in December. Unlike the trend of earlier years, however, this expansion continued into the new year and currency holdings rose by more than \$2.4 million in the three months ending March 1983. In the corresponding period of 1982, for example, currency held by the public had declined by almost \$0.6 million. Demand deposits also showed an overall increase in the first quarter of 1983. After jumping to \$24.0 million in January, deposits were drawn down to \$23.9 million by the end of March. Nevertheless, demand deposits had risen almost \$2.5 million since December. Unlike this year, these deposits had fallen from \$22.9 million in December 1981 to \$21.6 million in March 1982. Although demand deposits rose this year, current account deposits remained significantly below earlier peak levels.

The wider measure of money supply, M2 also underwent substantial expansion in the first quarter of 1982. Quasi-money (savings plus time deposits) rose more than 8 percent despite the downward adjustment in interest rates at the beginning of the year. Savings deposits which declined for the greater part of 1982, rose by more than \$2.1 million in the first quarter of 1983. At the end of March savings deposits totalled \$28.7 million. Time deposits, continuing its strong upward trend, expanded 8.4 percent to reach \$72.9 million in the same period.

CHAPTER ELEVEN
PUBLIC UTILITIES

WATER AND SEWAGE

The Water and Sewerage Authority, a statutory body operating under the control of the Ministry of Power and Communications, was established in 1971 and is responsible for the control and development of the supply and distribution of potable water and the disposal of sewage. There are seven municipalities in the country with public water systems of which five are administered by the National Water Authority.

Water supplies, sewage disposal, and refuse disposal present particular problems in all areas of Belize. While most cities and towns have water supplies, they are often contaminated, causing a high incidence of gastroenteritis among children. Smaller villages and outlying areas also have a continuing problem of providing safe water supplies. Water sources for these areas are either from communal standpipes or directly from streams which often pose health hazards.

Belize City poses the greatest problem as it is located in a swampy district far from fresh water streams or a suitable underground source. The problem is further complicated by the low elevation of the city above sea level (approximately 1 ft. average). The city's source of water is the Belize River. It is taken from a point approximately 17 miles outside the city's limits. There, a water treatment plant designed and built with funds and personnel from the Canadian Industrial Development Agency (CIDA), pumps treated water through a 16" supply line into the city's elevated and ground storage tanks. From there, it enters the distribution system which is comprised of 2-12" mains. Many of these are old galvanized lines and services, but they are gradually being

replaced with PVC.

Water treatment consists of sedimentation with coagulation, filtration, chlorination and pH adjustment. The system has a 2 MGD (million gallons per day) capacity with a storage capacity of approximately 3 MG. House to house connections have been introduced and a large majority of the city has already been "tied in". The installation of fire hydrants at strategic points within the city has also been accomplished.

Other cities in Belize operate water systems of varying quality. Benque Viejo Del Carmen obtains its supply from a spring which empties into the Mopan River. The water is pumped to a concrete reservoir on a hill and from there it is distributed to customers. Corozal Town is supplied by water from two wells located about one mile to the west of town and is stored in an elevated tank with a capacity of 50,000 gallons.

San Ignacio is supplied from the Macal River. Water is pumped from the river into two reservoirs with a total capacity of 200,000 gallons. A distribution system and house connections were introduced in 1961. Dangria has a modern distribution system which was completed in 1966 at a total cost of \$250,000.00. It has a capacity of 150,000 gallons. Punta Gorda's domestic vats have been augmented by the provision of four reinforced concrete rain water collection tanks with a total capacity of 360,000 gallons. Water is also pumped from a well into a distribution system which was completed in 1963.

In rural areas four portable percussion drills and one rotary drill are in operation and a number of wells have been sunk to augment supplies. With the assistance from the World Health Organization and UNICEF, windmill driven water supply systems are being introduced. In many of the remote villages, there are also many standpipes and hand operated pumps which were put in with the assistance of AID.

The disposal of sewage, especially body waste disposal, is inadequate, presents health problems, and frequently affects the safety of water supplies. // With the exception of Belmopan, there is no adequate sewerage system in the country.

Belize City's sewerage system which was designed and built with the aid of CIDA is about 60% complete. At the present time only a few government buildings have been "tied into" the system. Presently, a majority of the raw sewage is being dumped into open canals and ditches or into the Belize River with the aid of portable pumps or gravity flow along the sides of the streets. This disposal method causes a health hazard, especially during the rainy season. The use of "privies" is common in the slum areas of Belize City and rural areas encouraging the incidence of parasitic infections, especially in children. Since Belize City is built on a coastal swamp, the proper collection and treatment of sewage will continue to be difficult problem.

Garbage and refuse collection is also a problem in Belize. Even in Belize City, garbage is not collected frequently, and while awaiting collection, garbage cans are not used for storage.

WATER AUTHORITY: WATER & SEWERAGE ORDINANCE NO. 16/1970 SECTION 3 (2)

1. Mr. Herbert Bradley -- Chairman
2. Hon. Valdemar Castillo
3. Mr. Luke Espat
4. Mr. Edwin Parks J.P.
5. Mr. J. Cuthbert Gray
6. Financial Secretary
7. Mr. Carlos Habet
8. Mr. Gustavo Arceo
9. Mr. Leopoldo Briceno
10. Secretary, Chief Executive Officer, W.A.S.A.

Ministry of Energy & Communications - Belmopan, 3rd March, 1983

MEMBERS OF STATUTORY BOARDS AND COMMITTEES MINISTRY OF ENERGY AND COMMUNICATION
BELIZE ELECTRICITY BOARD CHAPTER 156

1. Mr. John Searle -- Chairman
2. Mr. Karl Menzies
3. Mr. Michael Bell
4. Mr. John Avilez
5. Mrs. Esther Price
6. The Mayor of Belize City
7. The Financial Secretary

POWER PRODUCTION

Belize has no coal nor developed petroleum resources of its own, and relies entirely on imports. The diesel fuel used to run the generators that produce the electricity for the Belize Electricity Board, an autonomous public agency, is imported from Mexico and comes into the country in trucks and tankers. Limited petroleum explorations are underway at the present time, as it is suspected that there is potential for oil both on-shore and off-shore.

Hydroelectric power may be a long range possibility; for the present it is ruled out as a feasible source of power, if only because of the small and dispersed market. These same factors are responsible for excess generating capacity in many small towns.

Electricity is generated by power stations in each major urban area, as there is no national power system. The Belize City generating plant is made up of the following Diesel/Alternator sets with 60 Hertz generating voltage of 6,600 volts:

3 English Electric 8SRL sets having, at 0.8 p.f., an MCR of 850 kw each

- 1 E.E.Co. 8CSRL set having, at 0.8 p.f., an MCR of 1,300 kw
- 1 E.E.Co. 16CSV set having, at 0.8 p.f., an MCR of 1,600 kw
- 2 X 2, 960 E.E.D. Diesel/Alternator sets

E.H.T. Transmission and Primary Distribution is carried out at 22,000 and 6,600 volts and there are about 25 miles of 3 phase 22,000 volt and 15 miles of 6,600 volt construction. The supply is undependable and rates are high - 17 to 21 U.S. cents per kwh.

Consumer servicing is provided at 110/220 volts two to three wire single phase service, and 220 or 440 volts four wire 3 phase service, all at 60 Hertz.

Major electricity consumers, such as the sugar mills and citrus processors, have their own power plants. The Board's 9 generating plants ranging from 75 kw to 7.2 megawats has increased considerably from the 5.4 megawat capacity in 1971 and has tied the major urban centers into a single power grid.

The generating plant in Belmopan is located west of the city. It houses 3 diesel driven generators (2 X 300 kw and 1 X 200 kw) and has provisions for a fourth as the demand increases. The fuel storage tanks have sufficient capacity to ensure a continuous electrical supply for over 60 days without having to be replenished. The present installation has a possible output of 850 kw with fully automatic regulation controlling it to 2 volts. An output voltage of 440 volts, 3 phase 50 cps is dropped to give an addition, 220 v or 110 v single phase. Transmission voltage is 11,500 volts carried over 24 miles of line for the initial stage and reduced for domestic uses through over 40 step down transformers.

Corozal Town and Orange Walk Town each have a capacity of 510 kw at 0.8 p.f., 440 volts, 30 cps. Dangria and San Ignacio each have an installed capacity of 420 kw at 0.8 p.f., 440 volts, 60 cps.

In Belize City the minimum charge (4.00) for all domestic, commercial and industrial purposes is for 13 KWH and under. As of May 1, 1979 for every one-cent increase in the base price paid for diesel fuel in Belize City, a corresponding increase or decrease of one-tenth of a cent per KWH will be made.

CHAPTER TWELVE
PUBLIC TRANSPORTATION

HIGHWAYS AND ROAD SYSTEM

Belize's road network consists of 345 miles primary roads, of which 185 miles are asphalt paved and 160 miles are gravel roads; 440 miles secondary and tertiary gravel roads; and about 225 miles unpaved farm-to-market roads and unimproved tracks, making a total of about 1,000 miles.

All main population and production centers have good primary road access. Reconstruction of the Western Highway from Belize City to near Belmopan was completed in the early 1970's. However, large areas are still not served by roads and occasionally rainy season floods cause impassable situations on existing roads.

The Ministry of Works is responsible for the provision and maintenance of roads. The foundations for a good road system are now being laid although it will be some years before current schemes can be regarded as completed. The mileage of roads in the territory is continually increasing; particularly feeder roads to serve the sugar cane industry. Some commodities incur transportation costs of up to 50% of total costs, as opposed to possibly 10% to 20% in developed nations.

There are all-weather roads between Belize City and Corozal Town in the north and between Belize City and San Ignacio in the west.

The rapid expansion of the sugar industry, and the erection of a new factory at Tower Hill, has resulted in the incorporation of completely new areas by cane farmers, and it has become necessary to provide 25 miles of additional feeder roads in the Orange Walk district to facilitate delivery of cane.

A British Overseas Aid grant of \$140,000 has been approved for the construction of three new feeder roads. Feeder roads have also been provided for the rice industry in the south.

The Ministry of Works has completed improvements to the Hummingbird Highway, which links the citrus-growing area in the Stann Creek District with the capital, Belmopan. The Ministry has also begun to upgrade a further 17-mile section of the Western Highway from Roaring Creek to San Ignacio. Plans are underway to reconstruct the road from San Ignacio to the Guatemalan Border after the completion of the Western Highway. When the program is completed, there will be a national highway system more than adequate for the existing and potential traffic densities.

Several small privately operated bus lines provide daily service between Belize City and Belmopan, San Ignacio, Bengue Viejo, Chetumal, Corozal Town, Orange Walk Town, Mango Creek, Punta Corda and Dangriga. Bus lines include Novelo's Bus Service, Belize City; Z-Line Bus Service, Dangriga; and Mike's Servicenter in Orange Walk Town.

SHIPPING

The coastal waters of Belize are navigable for their full length of 200 miles; the northern half by shallow draft vessels and the southern by ocean-going ships. A number of motor boats, sloops, lighters, dories, and schooners are available for hire at Belize City or regularly engaged in plying up and down the coast. There is a weekly Southern Coastal Freight, Passenger and Mail Service.

Belize City is the principal port of the country; and there is a shallow draft pier for discharging and landing cargo at Commerce Bight in Stann Creek District.

Approved ports or places of entry into the country are as follows:

- (a) in the Corozal District
Santa Elena, Patchakan, and the town of Corozal.
- (b) in the Orange Walk District
San Roman, San Antonio, Douglas, August Pine Ridge and the town of Orange Walk
- (c) in the Belize District
San Pedro (Ambergris Caye), Caye Caulker, Belize City Municipal Airstrip, Belize International Airport
- (d) in the Cayo District
Bengue Viejo and San Ignacio
- (e) in the Stann Creek District
Dangriga
- (f) in the Toledo District
Punta Gorda and Barranco
- (g) Hunting Caye, for the use of vessels which have obtained the permission of the principal Immigration Officer to bring passengers into the southern waters of Belize for recreational purposes only.

These approved ports of entry must be used by all passengers and vessels entering or leaving the country. On entering these ports all passengers must be cleared by Health, Customs, and Immigration Officials.

Shipping services include the T & J Harrison, Royal Netherlands, United Fruit, Buccaneer, Canada Jamaica, Trans-Caribbean, Green and Atkins, Armasal, Links Maritima, Maray, Esso Tanker, R. B. Kirconnel Brothers, Tropic Reaser, and K Lines.

The new deep water port in Belize City was dedicated in July 1979 and the shore based facilities, which include the administrative buildings of the Port Authority, the transit shed and the security fencing were completed in 1980. The new port in Belize City cannot handle ships requiring a draft of more than sixteen feet and continued use of lighters is necessary. Ancillary

facilities at the new port, such as customs sheds and warehouses, are inadequate. Pilferage from warehouses and sheds is common.

There are also about 500 miles of inland waters which are navigable by shallow draft boats.

AIR TRANSPORT

Belize International Airport is located about 10 miles to the northwest of Belize City, and is under the control of the Chief Civil Aviation Officer. It is adequate for C-130's and 737's. It is the only point of entry for aircraft from other countries. Tan, Sahsa, Taca, and Air Florida operate regular flights. U.S. flights go to and from New Orleans and Miami. Other countries served are Honduras and El Salvador. Maya Airways provides service in-country to each administrative district and charter flights to all airstrips in the country. Several charter companies also operate charters to the rural airstrips and to neighboring countries.

There are five regular airstrips situated in or near the capital towns of the administrative districts, Belize, Corozal, Stann Creek, Punta Gorda and Orange Walk.

The International Airport has a runway 6,300 feet by 150 feet plus 75 feet shoulders on each side. It is inadequate for commercial jets larger than 737s. Other airfields are: Belize (Municipal), 2,000 feet by 50 feet; Corozal, 1,940 feet by 50 feet; Stann Creek, 2,000 feet by 50 feet; Punta Gorda, 2,500 feet by 50 feet and Orange Walk, 1,900 feet. Other landing strips are located at Belmopan, Big Creek, Big Falls, Caye Chapel, Central Farm, Coston, Eden Farm, Gold Button, Hill Bank, Lamb Creek, Melinda, Norport, San Pedro, Santa Cruz, and Town Hill.

The Government has signed an agreement with the Central American Corporation for Navigational Services (Cocesna) to take over the aeronautical commun-

cations services of the country for a period of eight years. Under the contract Coesna will provide, operate, and maintain the fixed aeronautical telecommunications services and air navigation facilities at the Belize Flight Information Office. The government's obligation is to provide buildings and administration. The terminal building was built in 1945 and is inadequate for the present level of demand. The airport fire services need to be improved. Warehousing for air freight is inadequate.

MOTOR TRANSPORT

No commercial transport carriers exist in Belize. Local firms provide for their own transportation needs.

Corozal Transport and Equipment Company is the exclusive manufacturer of transport equipment. The firm is located in Corozal, Belize. Production includes the following:

- Sugarcane trailers
- Flatbed and lowbed trailers
- Banana and small utility trailers
- Bush hogs
- Tractor tires
- Backhoes

Ford Motor Company, John Deere, and Caterpillar have dealerships all located in Belize City.

Six commercial bus services operate from Belize to the major population centers of the country.

RAILROADS

No railroads exist in Belize.

on the international scene.

The Information Service operates a mobile film unit in the rural communities as well as publishes a monthly magazine called The New Belize.

CHAPTER FIFTEEN

REFUGEES AND DISPLACED PERSONS

Several realities merge to produce Belize's situation and policy toward refugees, displaced persons and aliens. Some of these are also likely to produce new pressures and policies in the changing Central American scenario:

1. Belize is undersettled and much of the country's farmland is dormant.
2. Many of the country's skilled and educated citizens have emigrated. Approximately 35,000 Belizeans have emigrated to the United States, for example.
3. The Mayan population expands across national borders, and has intermingled for centuries.
4. Many insurgents from Guatemala take refuge in Belize.
5. The disputed Guatemalan border can be crossed with relative ease.
6. Terms leading to mitigation of the border dispute are likely to give Guatemalans freer travel through Belize, a greater presence at port facilities and increased overland access.
7. Many Afro-Belizeans, who constitute a majority of the population are fearful that the country may be "latinized".
8. Emigration in the Americas generally is producing increasing probabilities of population influx. During March 1982, for example, the United States and Belize held serious discussions concerning possible resettlement of Haitians in Belize.
9. The uncertain Central American political climate has produced a number of Spanish speaking refugees. Currently, there are approximately 7,000 Salvadoran refugees in Belize.

The Minister of Defense and Home Affairs has overall responsibility for administration of refugees, displaced persons and aliens as well as the country's resettlement program. This Ministry designates foreigners in the resettlement program as refugees if they entered Belize before June 1981, and as aliens if they arrived after that date.

More specifically, the program is operated through the auspices of the

Refugee Resettlement Board, located at Number 5 Corozal Street, Belmopan.

The Executive Secretary of the Board is Peter Thomas, whose telephone number is 08-2525. The board interviews applicants to the resettlement program and makes the decision to either admit or not admit them.

The United Nations provides aid to the resettlement program. The U. N. effort is directed by Regina Coballer, whose office is located in Costa Rica.

There are at least three resettlement areas in Belize. One of these, The Valley of Peace, is administered on a day-to-day basis by volunteers from the Mennonite Central Committee. It currently serves one hundred families totalling seven hundred people. Approximately two-thirds of these are Salvadorans and one-third are Belizean. One hundred more families are anticipated by December 1983. Resettled families receive up to fifty acres of land and up to \$2500 total aid credit. Salvadorans are not allowed to leave the area unescorted.

The program calls for a bi-weekly doctor's visit to the resettlement area, but visits have been sporadic. There are no trained medical personnel who stay in the area. The Belizean government provides teachers for school children. However, some of these are poorly trained.

CHAPTER SIXTEEN

RELIGION

Freedom of religion is guaranteed by the Constitution. Accordingly, at least twelve distinct faiths can be identified in Belize. The three major denominations (Roman Catholicism, Church of England (Anglican), and Methodists) exert a strong influence on Belizean society through their shared responsibility with the government for primary schooling and their management of the secondary school system. All but two of the nineteen secondary schools are operated by religious denominations. Social needs of communities are also served by such church-sponsored charitable and philanthropic organizations as the Belize Christian Council and the Salvation Army. Ministering to their own throughout the country are the Church of Scotland, Baptists, Presbyterians, the Church of the Nazarene, Seventh Day Adventists, Mennonites, Assemblies of God, Jehovah's Witnesses, National Spiritual Assembly of the Baha'is, and World Community of Islam in the west.

In some remote areas, primitive polytheistic faiths blend with various rituals and teachings of Roman Catholicism to create "Modern" Indian religions. The Garifuna, derived from distant intermarriage of African slaves and Amerindian Caribs, is one such tribe simultaneously practicing Christian and "pagan" antics to rid members of "dugu", or spirit possession. These natives, located mainly in the coastal areas of the Stann Creek and Toledo districts, represent about ten percent of the population.

Despite current religious diversity, until the middle of the 19th century, the Anglican Church not only represented the established church of "British Honduras" (and, therefore, enjoyed support through public funds), but was probably the most influential of the different religious bodies in the country.

Since 1776 and throughout the majority of British rule, Anglican clergy participated significantly in the hierarchical colonial society. Yet the Anglicans largely ignored missionary work, preferring to concentrate their ministry on the more prosperous sections of Belize City. Failure to concern themselves with pockets of outlying population coupled with internal church strife gave rise to other religious faiths.

In the mid-19th century, active Nonconformists' missionary work among slaves and Caribs made inroads on the heretofore unchallenged hold of the Anglicans. The influx of Yucatcan refugees into northern parts of Belize further eroded the Anglican position. These new settlers brought with them a firmly-entrenched Roman Catholic faith which attracted even those Indians who did not belong to the Christian church. Elaborate Catholic ceremonies and rituals were calculated to appeal to the Indian mind far more than the formal austerity of Anglican worship. By 1856, the missionary zeal of the Jesuits, demonstrated consistently by their willingness to work in remote and backward villages, brought Roman Catholicism to the second most important position of religious influence in Belize.

Although the Pope created the Vicariate of Belize in 1893, the American Society of Jesus from Missouri Province assumed responsibility for its administration, and despite the creation of a Bishopric in 1956, the Missouri Province Jesuits have retained control for the last ninety years. Through their system of village schools, the Roman Catholic Church created a lasting religious foundation.

Important in any overview of religious life in Belize are the Mennonites, a German-speaking group which first settled in 1959. Resulting from a London conference the following year, an orderly immigration policy was instituted to aid the Belizean economy by the increasing settlement of these skilled farmers.

BELIZE CHRISTIAN COUNCIL

MEMBER CHURCHES AND BODIES

ROMAN CATHOLIC	(Rt. Rev. R. R. Hodapp) Fr. Osmond Martin Sr. Margaret Gongore Mrs. M. Craig	Catholic Presbytery Catholic Presbytery 114 North Front St. Palotti Convent Princess Margaret Dr. 58 Regent Street
ANGLICAN	Rt. Rev. Keith McMillan Rev. Eric Richards Mrs. Gwen Gillett	Bishopthorpe 25 Southern Foreshore St. John's Rectory 59 Southern Foreshore Cor. Douglas Jones & Cran Streets
METHODIST	Rev. Bruce Swapp Rev. Harold Gill Mr. Seymour Vernon	Burnham Manse 88 Albert Street Wesley Manse 88 Regnet & Albert Sts. 64 Regent Street West
SALVATION ARMY	Capt. R. Mason Capt. Levi Ward Mrs. Viola Myles	Salvation Army Headqtrs 9 Glynn Street c/o Salvation Army Headqtrs 114 A. West Street
PRESBYTERIAN	Rev. Robert Watts Mr. Norman Boyd Mrs. Eva Swift	St. Andrew's Manse 27 Southern Foreshore 21 Guadalupe Street Cor Myvett & Fairweather Streets
CHURCH OF GOD	Mrs. A. Bennett Elder Meighan	34 Vernon Street c/o 34 Vernon Street
BELIZE FEDERATION OF WOMEN	Mrs. Elfreda Reyes Miss G. O'Brien	West Street Price Aloey
BLACK CROSS NURSES	Nurse C. White Mrs. N. Belisle	Cran Street 20 Bishop Street
Y.W.C.A.	Mrs. B. Harris Mrs. Shelmadine Faux	/
SEVENTH DAY ADVENTIST	Pastor Victor Shepherd	Cor. Regent & King Sts

CHAPTER THIRTEEN

PUBLIC COMMUNICATION

TELECOMMUNICATIONS

The Belize Telecommunications Authority by the early 1980's covered the country in an automatic and manual system with an \$18 million modernization program district to district. Emergency times, and there are four stations Roman, San Felipe, Progresso generator at Maskall.

s Authority (BTA) operates a system, which covers the country with approximately 7,140 telephones in use. This system has recently been expanded under a modernization program. There is a microwave link from the central power systems insure full operations at all emergency units which have been installed at San August Pine Ridge and a thermo-electric

<u>Exchanges</u>	<u>Lines (1982)</u>
Belize City	4,500
Ladyville	200
San Pedro	100
Orange Walk Town	400
Corozal Town	500
Dangriga	200
Independence	40
Punta Gorda	100
Belmopan	800
San Ignacio	200
Benque Viejo	100

International radio telephone, telegraph, and telex services to much of the world are available via Cable & Wireless Ltd., operating through a standard B Earth Station at Belmopan. BTA also operates an international telephone service to Central America and some South American countries through Guatemala and Mexico.

RADIO

The government owned and operated Radio Belize network effectively covers all of the country. There is both an AM and an FM band. Most homes

have radios. There is a variety of religious and music programming, with the radio system, while semicommercial since 1964, largely government-supported. There is about 4 ½ hours of Spanish broadcasting per day. The station is on the air an average of 119 hours per week, operating on 834 KHz (20 KW) from Belize City and on 920 KHz (1 KW) from Belmopan.

Since January 1, 1983, aliens wishing to attain a Belize Amateur Radio License for a temporary visit to the country have to apply for the license through the Office of Frequency Management, Belize Telecommunications Authority, P. O. Box 603, Belize City. This agency is located at the second floor of the Albert Cattouse Building, Belize City. A certified copy of a valid amateur license issued by the alien's home country or country of residence must accompany the letter of application.

POSTAL SERVICES

Postal services include 48 post offices, seven of which are money order offices. The principal office in each of the seven main towns transacts all classes of postal business, the others are open for acceptance and delivery of correspondence and sale of stamps only. A few village post offices at Benque Viejo Del Carmen, Independence, Seine, Sittee and Central Farm also sell postal orders.

There is a six times weekly air mail service to U. S., United Kingdom and other points and a service three times a week to Honduras and other Central America countries.

INFORMATION SERVICE

The Government Information Service is administered by the Minister of Home Affairs. It is designed to interpret and explain government policies to the people, keep in touch with public reaction to government policies and actions, encourage greater interest in economic development and to project Belize image

CHAPTER FOURTEEN
ARTS, MONUMENTS, AND ARCHIVES

MAYAN RUINS

Belize is a nation whose cultural artifacts are still largely as undeveloped as the rest of its society. It does, however, have a rich heritage of pre-Columbian sites which the military commander must be aware of and protect in event of military action.

Maya Indian remains date as early as 2500 B.C. at Orange Walk and are scattered throughout the country at sites ranging from small villages and cave sites to impressive ruins at Altun Ha and Lamanai. The Maya tradition in Belize lasted through the Post-Classic period to well after A.D. 950. Maya population has been conservatively estimated at its peak as around 400,000--about three times the present-day population of Belize!

Altun Ha is the most carefully studied and maintained Mayan Site and is located about 30 miles north of Belize City. The site covers about 4 and a half square miles. It was settled at least as early as 200 B.C. and flourished until around 900 when it was abandoned. There are five pyramids arranged around two plazas as well as scores of other small mounds which have not been excavated. The site has been partially excavated and many artifacts have been found, most notably the large jade head of the sun god Kinich Ahau.

Xunantunich is a site located near Benque Viejo and which has the tallest man-made structure in Belize, the "A-6" pyramid. Although it has never been scientifically explored, there have been fine flint and obsidian objects found there in various caches.

Nim Li Punit is a site in the Toledo District of Belize, and is where large numbers of stone monuments called stelae have been discovered. The site has been

partially excavated and dated in the late Classic Period (A.D. 550-900).

Lubaantun is also in the Toledo District near San Pedro Columbia. It is similar to the great Mayan site at Tikal, only smaller in size. It was only occupied for a little over a century (approximately A.D. 730-850), but was obviously an important center. A number of whistle figurines have been found at the site, as well as obsidian and jade objects.

Lamanai is the only site in Belize referred to by historical Spanish records, indicating, perhaps, that the other large Mayan sites had been abandoned by the time of the Conquest. The Spanish founded a church there in the 1570x, but it was burned by the Maya in 1641. The site is identified today as Indian Church.

Cuello-Cerro is a site about three miles from Orange Walk and is important from two standpoints. One, the earliest pottery found at the site date from 2600 B.C., making it one of the oldest known sites in the Maya area. It also contained numerous jade materials which shows the Maya were trading over large distances as early as 1500 B.C. Evidence indicates that this was a major trading center between 300 B.C. and A.D. 100 and suggests that the Maya in Belize were early innovators of the Classic Maya civilization that followed that time period.

LIBRARIES AND ARCHIVES

The Bliss Institute in Belize City, maintains a "National Collection" which consists of unpublished materials, manuscripts, theses, and other documents relating to Belizian history and culture. The National Archives is located in Belmopan. There are few other research and archival assets in the country.

HQ, FORSCOM
Ft. McPherson, GA
Attn: DCSOPS

HQ, FORSCOM
Ft. McPherson, GA
Attn: DCSOPS-CA

HQ, FORSCOM
Ft. McPherson, GA
Attn: G5

1st Special Operations Command
Ft. Bragg, NC 28307
Attn: G3

1st Special Operations Command
Ft. Bragg, NC 28307
Attn: G5

Commander, 361st CA Brigade
1200 College Blvd.
Pensacola, FL 32504

Department of the Army
Attn: DAMO-ODO
Pentagon
Washington, DC 20310

Although small in number, the self-sufficient Mennonite communities, situated in rural western Belize, are of note as they contribute significantly to the agricultural wellbeing of the country as well as providing the nation's only dairy complex. Additionally, the Mennonites provide medical assistance and Christian evangelism to the rural population.

Seventh Day Adventists have gained a foothold north of Belize City and are flourishing as a result of citrus farming in that area.

However, of most visibility and significance is the large Roman Catholic population. A holiday visit from Pope John Paul II in March of 1983 demonstrated Belizean religious fervor as crowds of people estimated at 6,000 thickly jammed the dusty road to the Belize City Airport to demonstrate their devotion.

Religion further permeates the Belizean culture through daily religious broadcasting from Radio Belize. Programs include such BBC, U.S. and locally-produced programs as "Devotion at Dawn", "The Way to Life", "Showers of Blessings", "The Hour of Decision", "Voice of Prophecy", "Family Bible Hour", "The Living Word", "Bahai Viewpoint" and "Back to the Bible".

DISTRIBUTION

U.S. Department of Defense
Armed Forces Staff College Library
7800 Hampton Boulevard
Norfolk, VA 23511

U.S. Department of Defense
Defense Intelligence School Library
U.S. Naval Station, Anacostia Annex
Washington, DC 20390

U.S. Department of the Air Force
U.S. Air Force Academy Library (DFSLB)
FL 7000
USAF Academy, CO 80840

U.S. Department of the Army
Army Library
The Pentagon, Room 1A518
Washington, DC 20310

U.S. Department of the Army
U.S. Military Academy Library
West Point, NY 10996

U.S. Department of the Army
U.S. Army School of the Americas Library
Ft. Benning, GA

U.S. Department of the Army
TRADOC Library and Information Network
Building 117
Ft. Monroe, VA 23351

U.S. Department of the Army
Special Warfare Center
Marquat Memorial Library
Ft. Bragg, NC 28307

U.S. Department of the Army
Army Infantry School Library
Infantry Hall
Ft. Benning, GA 31905

U.S. Department of Defense
Inter-American Defense College
Fort McNair
Washington, DC 20315

U.S. Department of Defense
Defense Intelligence Agency
Washington, DC 20301

U.S. Department of the Air Force
U.S. Air Force Southern Air Division
USAF Library FL 7010
Albrook AFS, Panama
APO Miami, FL 34002

U.S. Department of the Air Force
Special Operations Library
Special Operations
Hurlburt Field, FL

U.S. Department of the Army
TRADOC Command Librarian
Attn: ATPL-AOL
Ft. Monroe, VA 23651

U.S. Department of the Army
FORSCOM Command Librarian
Personnel Services Division
(AFPR-PSM)
Ft. McPherson, GA 30330

Army Materiel Command
HQs - Technical Library
5001 Eisenhower Avenue
Alexandria, VA 22333

U.S. Department of the Army
Army Command & General Staff College
Library
Code: ALLES-A-L
Ft. Leavenworth, KS 66027

U.S. Department of the Army
U.S. Army War College Library
Carlisle, Barracks, PA 17103

U.S. Department of the Army
Army Intelligence Center & School
Library
Ft. Huachuca, AZ 85613

U.S. Department of the Navy
U.S. Naval Post Graduate School
Dudley Knox Library
Monterey, CA 93940

U.S. Department of the Navy
Naval War College Library
Newport, RI 02840

U.S. Marine Corps
Camp Pendleton Library System
Building 1122 Marine Corps Base
Camp Pendleton, CA 92055

U.S. Marine Corps
Defense Technical Information Center
Cdr: USA-FSTC Attn: AIAST-IS
220 7th N.E.
Charlottesville, VA 22901-5396

U.S. Military Liaison Office Belize
Washington, DC 20520

U.S. Military Liaison Office Brazil
APO Miami 34030
Attn: LtCol Byrne

U.S. Office of Defense Cooperation
Costa Rica
APO Miami 34020
Attn: LTC Taylor

U.S. Military Group El Salvador
APO Miami 34023
Attn: COL Steele

U.S. Military Group Panama
APO Miami 34003
Attn: COL Stone

U.S. Military Assistance and Advisory
Group Peru
APO Miami 34031
Attn: COL Carty

U.S. Military Group Venezuela
APO Miami 34037
Attn: COL Wilson

U.S. Department of the Navy
U.S. Naval Academy Library
Anapolis, MD

U.S. Agency for Int'l Development
Development Information Center
State Department, Rm 1656
Washington, DC 20423

U.S. Marine Corps
U.S. Marine Corps Education center
James Carson Breckenridge Library
Quantico, VA 22134

U.S. Military Group Argentina
APO Miami 34034
Attn: COL Smith

U.S. Military Group Bolivia
APO Miami 34030

U.S. Military Group Colombia
APO Miami 34038
Attn: COL Barnes

U.S. Military Liaison Office Ecuador
APO Miami 34039
Attn: COL Rodriguez

U.S. Military Group Guatemala
APO Miami 34024
Attn: COL McLaughlin

U.S. Office of Defense Cooperation
Paraguay
APO Miami 34036
Attn: COL Fry

U.S. Office of Defense Cooperation
Uruguay
APO Miami 34035
Attn: COL Lechegaray

National War College Library
Fort McNair
Washington, DC 20315

Industrial College of the
Armed Forces Library
Fort McNair
Washington, DC 20315

HQ, U.S. Marine Corps
Library
Camp Lejeune, NC 28542

4th Civil Affairs Group
U.S. Marine Reserve
Latin America Division
Anacostia Naval Base
Washington, DC 20020

Library of Congress
Washington, DC 20540

Department of the Army
Central America Task Force
DAMO-SST
Pentagon
Washington, DC 20310

Department of the Army
DCS for Operations and Plans
Strategic Plans and Policy Div.
DAMO-SS / LATAM Regional Br.
Washington, DC 20310

Joint Chiefs of Staff
J5 Western Hemisphere Division
Pentagon
Washington, DC 20301

Joint Chiefs of Staff
J5 Western Hemisphere Division
Caribbean Basin Br/South America Br
Pentagon
Washington, DC 20301

Department of Defense
Dep. Asst. Secretary for Inter-American
Affairs
Pentagon
Washington, DC 20301

Department of State
Latin America Division
Washington, DC 20525

U.S. Army Special Warfare Center
School of International Studies
Department of Civil Affairs
Ft. Bragg, NC 28307

U.S. Army Special Warfare Center
School of International Studies
Dept. of Area Studies
Attn: Latin American Seminar
Ft. Bragg, NC 28307

Cir, 96th Civil Affairs Battalion
Ft. Bragg, NC 28307

Cir, 1st Psychological Operations Bn
Attn: Special Studies Detachment
Ft. Bragg, NC 28307

Cdr, 7th Special Forces Group
Ft. Bragg, NC 28301

Cdr, 3d Special Forces Battalion
7th Special Forces Group
APO Miami 34005

Department of the Army
Director of Plans and Ops
Ops & Plans Div/Americas
Pentagon
Washington, DC 20310

Department of Defense
Asst. Secretary of Defense for Latin
American Affairs
Pentagon
Washington, DC 20301

U.S. Embassy Argentina
APO Miami 34034

U.S. Embassy Bolivia
APO 34032

U.S. Embassy Brazil
APO Miami 34030

U.S. Embassy Chile
APO Miami 34033

U.S. Embassy Colombia
APO Miami 34038

U.S. Embassy Costa Rica
APO Miami 34020

U.S. Embassy Ecuador
APO Miami 34039

U.S. Embassy El Salvador
APO Miami 34023

U.S. Embassy Guatemala
APO Miami 34024

U.S. Embassy Honduras
APO Miami 34022

U.S. Embassy Nicaragua
APO Miami 34021

U.S. Embassy Panama
APO Miami 34002

U.S. Embassy Paraguay
APO Miami 34036

U.S. Embassy Peru
APO Miami 34031

U.S. Embassy Uruguay
APO Miami 34035

U.S. Embassy Venezuela
APO Miami 34037

Department of the Army
Politico Military Division
DAMO-SSM
Pentagon
Washington, DC 20310

Commander
193d Infantry Brigade (Pan)
APO Miami 34004

HQ, 193d Infantry Brigade (Pan)
AFZU-PC
APO Miami 34004

HQ, 193d Infantry Brigade (Pan)
AFZU-DS
APO Miami 34004

HQ, 193d Infantry Brigade (Pan)
AFZU-DI
APO Miami 34004

HQ, 193d Infantry Brigade (Pan)
AFZU-CA
APO Miami 34004

HQ, 193d Infantry Brigade (Pan)
470th MI BN
Attn: IAGPP
APO Miami 34004

HQ, 193d Infantry Brigade (Pan)
AFZU-MOLA-SA
APO Miami 34004

U.S. Air Force Southern Air Division
Attn: LAT
APO Miami 34001

Commander, U.S. Naval Forces South
FPO Miami, FL 34061
Attn: N4 (LATAM)

Office of the Joint Chiefs of Staff
Pentagon
Washington, DC 20310
Attn: J1

Office of the Joint Chiefs of Staff
Pentagon
Washington, DC 20310
Attn: J2

Office of the Joint Chiefs of Staff
Pentagon
Washington, DC 20310
Attn: J3

Office of the Joint Chiefs of Staff
Pentagon
Washington, DC 20310
Attn: Joint Exercise Division

Office of the Joint Chiefs of Staff
Pentagon
Washington, DC 20310
Attn: J4

Office of the Joint Chiefs of Staff
Pentagon
Washington, DC 20310
Attn: J5

U.S. Army Medical Activity Panama
Tropical Disease Division
APO Miami 34004

Civil Affairs School
Ft. Bragg, NC 28307

PSYOPS School
Ft. Bragg, NC 28307

Foreign Area Officer School
Ft. Bragg, NC 28307

Special Forces School
Fort Bragg, NC 28307

Military Intelligence School
Library
Ft. Huachuca, AZ 85613